(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 June 2013 (27.06.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/093802 A2

(51) International Patent Classification:

A61K 8/31 (2006.01)	***A61Q 1/06*** (2006.01)
A61K 8/34 (2006.01)	***A61K 8/02*** (2006.01)
A61K 8/37 (2006.01)	***A61K 8/92*** (2006.01)
A61K 8/44 (2006.01)	***A61Q 19/00*** (2006.01)
A61K 8/88 (2006.01)	***A61Q 1/04*** (2006.01)

(21) International Application Number:
PCT/IB2012/057483

(22) International Filing Date:
19 December 2012 (19.12.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

1162054	20 December 2011 (20.12.2011)	FR
1162055	20 December 2011 (20.12.2011)	FR

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available):* AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available):* ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

WO 2013/093802 A2

(54) Title: COMPOSITION COMPRISING A POLYAMIDE RESIN, A GELLING SYSTEM, A POLAR OIL AND AN APOLAR OIL

(57) Abstract: The present invention relates to a transparent, anhydrous and solid composition comprising: - at least one polyamide resin, - at least one gelling system comprising a combination of at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a linear alkyl chain, with at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a branched alkyl chain, and preferably with a solvent that is capable of forming hydrogen bonds with these two low molecular weight lipophilic gelling agents, and -at least one polar nonvolatile oil, -at least one apolar non - volatile oil in an amount of less than 35% by weight relative to the total weight of the composition.

COMPOSITION COMPRISING A POLYAMIDE RESIN, A GELLING SYSTEM, A POLAR OIL AND AN APOLAR OIL

The present invention relates to the field of caring for and/or making up the skin and/or the lips, in particular the lips.

Compositions for caring for and/or making up the skin and/or the lips generally contain one or more fatty substances structured with a "structuring" or "gelling" agent, conventionally a wax or a polymer, to improve the stiffness of the compositions and especially to obtain solid compositions, preferably in the form of sticks, which remain stable in this state and in particular which do not exude, especially at room temperature.

Needless to say, the galenical form of these compositions must, on the one hand, satisfy mechanical requirements in order to ensure the glidance and wear properties of the stick during application and to prevent it from breaking, and, on the other hand, satisfy transfer qualities so as to ensure comfortable application and also a sufficient and good-quality deposit on the lips.

Compositions containing waxes are not always satisfactory, especially in terms of gloss and of gloss remanence. In terms of sensory qualities, users note that these compositions often lead to a thick, non-glidant deposit, and to a waxy feel that may be attributed to recrystallization of the waxes on contact with the lips.

The cosmetic compositions targeted by the present invention are more particularly solid makeup and/or care compositions intended to be applied to keratin materials, especially the skin and the lips, and may be formulated especially as lipsticks, lip balms, lip pencils, solid foundations, especially cast in stick or dish form, concealer products, skin-coloring products, eye makeup products, for instance eyeliners, in particular in pencil form, and mascaras, especially in cake form, or alternatively eyeshadows.

The underlying problem of the present invention was that of obtaining an anhydrous and transparent composition for caring for and/or making up the skin and/or the lips, which is free of waxes, so as not to have the drawbacks mentioned above associated with wax-based compositions.

The inventors have solved this problem by means of the composition according to the present invention.

Thus, according to a first aspect, a subject of the present invention is a transparent, anhydrous, solid composition.

According to a first variant, a subject of the present invention is a transparent, anhydrous and solid composition comprising:

- at least one polyamide resin,
- at least one gelling system comprising a combination of at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a linear alkyl chain, chosen especially from (C_2-Ce)dialkyl N-acylglutamides in which the acyl group comprises a linear C_8 to C_{22} alkyl chain, with at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a branched alkyl chain, chosen especially from (C_2-C_6)dialkyl N-acylglutamides in which the acyl group comprises a branched C_8 to C_{22} alkyl chain, and preferably with a solvent that is capable of forming hydrogen bonds with these two low molecular weight lipophilic gelling agents,
- at least one polar nonvolatile oil,
- at least one apolar nonvolatile oil in an amount of less than 35% by weight relative to the total weight of the composition.

According to a second variant, a subject of the present invention is a transparent, anhydrous, solid composition comprising:

- a fatty phase comprising at least one hydrocarbon-based polar nonvolatile oil chosen from alcohol oils,
- at least one polyamide resin, and
- a gelling system comprising a combination of at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a linear alkyl chain, chosen especially from (C_2-Ce)dialkyl N-acylglutamides in which the acyl group comprises a linear C_8 to C_{22} alkyl chain, with at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a branched alkyl chain, chosen especially from (C_2-C_6)dialkyl N-acylglutamides in which the acyl group comprises a branched C_8 to C_{22} alkyl chain,

in which composition the fatty phase/gelling system weight ratio is less than 60 and preferably less than 50.

According to a second aspect, a subject of the present invention is a process for caring for and/or making up skin and/or the lips, in which the composition according to the invention is applied to the skin and/or the lips.

According to a third aspect, a subject of the present invention is the use of the composition according to the invention for caring for and/or making up the skin and/or the lips and especially as a lipstick, in particular for improving the comfort of keratin materials.

The compositions according to the invention have the advantage of being both solid and transparent.

By virtue of their transparency, these compositions are visually very satisfactory.

In addition, they are characterized by good glidance on application. The deposit obtained is fine and glossy, and has a soft, creamy texture similar to that of a balm.

Other subjects, aspects, properties and advantages of the present invention are presented in the rest of the present description.

Protocol for measuring the hardness:

The term "solid" composition means the form of the composition at 20°C, and in particular the term "solid" means a composition whose hardness at 20°C and at atmospheric pressure (760 mmHg) is greater than or equal to 30 Nm^{-1} when it is measured according to the protocol described below.

The hardness of a solid composition is measured according to the following protocol.

The composition whose hardness is to be determined is stored at 20°C for 24 hours before measuring the hardness.

The hardness may be measured at 20°C via the "cheese wire" method, which consists in transversely cutting a wand of product, which is preferably a circular cylinder, by means of a rigid tungsten wire 250 μιη in diameter, by moving the wire relative to the stick at a speed of 100 mm/minute.

The hardness of the samples of compositions of the invention, expressed in Nm^{-1}, is measured using a DFGS2 tensile testing machine from the company Indelco-Chatillon.

The measurement is repeated three times and then averaged. The average of the three values read using the tensile testing machine mentioned above, noted Y, is given in grams. This average is converted into newtons and then divided by L which represents the

longest distance through which the wire passes. In the case of a cylindrical wand, L is equal to the diameter (in metres).

The hardness is converted into Nm^1 by the equation below:

$(Y \times 10^{-3} \times 9.8)/L$

For a measurement at a different temperature, the stick is stored for 24 hours at this new temperature before the measurement.

According to this measuring method, the composition according to the invention preferably has a hardness at 20°C and at atmospheric pressure of greater than or equal to 40 Nm^{-1} and preferably greater than 50 Nm^{-1}.

Preferably, the composition according to the invention especially has a hardness at 20°C of less than 500 Nm^{-1}, especially less than 400 Nm^{-1} and preferably less than 300 Nm^{-1}.

Advantageously, these compositions have a shear value ranging from 80 to 120 and preferably from 90 to 120 gF. Thus, these compositions may be formulated in standard packaging that does not require any composition support means.

For the purposes of the invention, the term "transparent composition" means a composition which transmits at least 40% of light at a wavelength of 750 nm without scattering it, i.e. a composition in which the scattering angle of the light is less than 5° and is better still about 0°.

The transparent composition may transmit at least 50%, especially at least 60% and especially at least 70% of light at a wavelength of 750 nm.

The transmission measurement is made with a Cary 300 Scan UV-visible spectrophotometer from the company Varian, according to the following protocol:

- the composition is poured into a square-sided spectrophotometer cuvette with a side length of 10 mm;

- the sample of the composition is then maintained in a thermostatically-regulated chamber at 20°C for 24 hours;

- the light transmitted through the sample of the composition is then measured on the spectrophotometer by scanning wavelengths ranging from 700 nm to 800 nm, the measurement being made in transmission mode;

- the percentage of light transmitted through the sample of the composition at a wavelength of 750 nm is then determined.

The transparent compositions, when they are placed 0.01 m in front of a black line 2 mm thick in diameter drawn on a sheet of white paper, allow this line to be seen; in contrast, an opaque composition, i.e. a non-transparent composition, does not allow the line to be seen.

Preferably, the composition according to the invention is colorless.

For the purposes of the invention, the term "colorless composition" means that the composition absorbs light outside the visible range, i.e. outside the range of wavelengths between 400 and 700 nm and advantageously between 380 and 780 nm.

The composition may also be slightly colored, and in this case it contains a maximum of 1%, preferably less than 0.5% and more preferentially less than 0.2% by weight of at least one organic dyestuff relative to the total weight of the composition.

The dyestuff is preferably chosen from organic dyestuffs and metal oxides, and mixtures thereof.

The said organic dyestuff may be chosen from organic pigments.

The organic pigments may be chosen from the materials below, and mixtures thereof:

- cochineal carmine,
- organic pigments of azo dyes, anthraquinone dyes, indigoid dyes, xanthene dyes, pyrene dyes, quinoline dyes, triphenylmethane dyes and fluorane dyes.

Among the organic pigments, mention may be made especially of the D&C certified pigments known under the following names: D&C Blue No. 4, D&C Brown No. I, D&C Green No. 5, D&C Green No. 6, D&C Orange No. 4, D&C Orange No. 5, D&C Orange No. 10, D&C Orange No. 11, D&C Red No. 6, D&C Red No. 7, D&C Red No. 17, D&C Red No. 21, D&C Red No. 22, D&C Red No. 27, D&C Red No. 28, D&C Red No. 30, D&C Red No. 31, D&C Red No. 33, D&C Red No. 34, D&C Red No. 36, D&C Violet No. 2, D&C Yellow No. 7, D&C Yellow No. 8, D&C Yellow No. 10, D&C Yellow No. II, FD&C Blue No. 1, FD&C Green No. 3, FD&C Red No. 40, FD&C Yellow No. 5, FD&C Yellow No. 6.

The chemical materials corresponding to each of the organic dyestuffs mentioned previously are mentioned in the publication "International Cosmetic Ingredient Dictionary and Handbook", 1997 edition, pages 371 to 386 and 524 to 528, published by The Cosmetic, Toiletries and Fragrance Association, the content of which is incorporated into the present patent application by reference.

Advantageously, said organic dyestuff is chosen from the following liposoluble dyes: 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 dyestuff may also contain a pulverulent material that is surface-treated with a hydrophobic agent chosen from pigments and/or nacres.

The term "pigments" should be understood as meaning white or colored, mineral or organic particles of any shape, which are insoluble in the physiological medium, and which are intended to color the composition.

The term "nacres" should be understood as meaning iridescent particles of any shape, produced especially by certain molluscs in their shell, or alternatively synthesized.

The pigments may be white or colored, and mineral and/or organic. Among the mineral pigments that may be mentioned are titanium dioxide, optionally surface-treated, zirconium oxide or cerium oxide, and also zinc oxide, iron (black, yellow or red) oxide or chromium oxide, manganese violet, ultramarine blue, chromium hydrate and ferric blue, and metal powders, for instance aluminum powder and copper powder.

Among the organic pigments that may be mentioned are carbon black, pigments of D&C type and lakes based on cochineal carmine or on barium, strontium, calcium or aluminum.

Mention may also be made of pigments with an effect, such as particles comprising a natural or synthetic, organic or mineral substrate, for example glass, acrylic resins, polyester, polyurethane, polyethylene terephthalate, ceramics or aluminas, said substrate optionally being coated with metallic substances such as aluminum, gold, silver, platinum, copper or bronze, or metal oxides such as titanium dioxide, iron oxide or chromium oxide, and mixtures thereof.

The nacreous pigments can be chosen from white nacreous pigments, such as mica covered with titanium oxide or with bismuth oxychloride, colored nacreous pigments, such as titanium oxide-coated mica covered with iron oxides, titanium oxide-coated mica covered with in particular ferric blue or with chromium oxide, or titanium oxide-coated mica covered with an organic pigment of the abovementioned type, and nacreous pigments based on bismuth oxychloride. Interference pigments, especially liquid-crystal or multilayer interference pigments, may also be used.

The dyestuffs, in particular the pigments treated with a hydrophobic agent, may be present in the composition in a content ranging from 0.1% to 50% by weight, preferably ranging from 0.5% to 30% by weight and preferentially ranging from 1% to 20% by weight, relative to the total weight of the composition. The pulverulent dyestuffs surface-treated with a hydrophobic agent may constitute from 10% to 100% by weight of all of the dyestuffs.

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

The composition according to the invention is anhydrous.

For the purposes of the invention, the term "anhydrous composition" means a composition containing less than 2% and preferably less than 0.5% by weight of water relative to the total weight of the composition. Where appropriate, such small amounts of

water may be provided by ingredients of the composition that contain it in residual amount, but are not deliberately provided.

The composition according to the invention comprises, and preferably consists essentially of, a fatty phase and of agents for structuring said fatty phase.

BASE

FATTY PHASE

According to the first variant of the composition, the fatty phase of the composition according to the invention comprises at least one polar nonvolatile oil and at least one apolar nonvolatile oil in an amount of less than 35% by weight relative to the total weight of the composition.

According to the second variant of the composition, the fatty phase of the composition according to the invention comprises at least one polar nonvolatile oil chosen from alcohol oils.

The fatty phase consists of all of the fatty substances and contains at least one oil.

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

The term "nonvolatile oil" means an oil that remains on keratin materials, at room temperature and atmospheric pressure, for at least several hours and that especially has a vapor pressure of less than 10^{-3} mmHg (0.13 Pa). A nonvolatile oil may also be defined as having an evaporation rate such that, under the conditions defined previously, the amount evaporated after 30 minutes is less than 0.07 mg/cm^2.

Polar oils

The composition according to the invention comprises at least one polar nonvolatile oil, preferably chosen from hydrocarbon-based oils and fluoro oils.

According to one preferred mode, the composition does not comprise any nonvolatile silicone oil(s).

The term "silicone oil" means an oil containing at least one silicon atom, and especially containing Si-0 groups.

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

According to a first preferred embodiment, said nonvolatile polar oil is a hydrocarbon-based oil.

For the purposes of the present invention, the term "polar oil" means an oil whose solubility parameter at 25°C, δ_a, is other than 0 $(J/cm^3)^{1/2}$.

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

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

Nonvolatile hydrocarbon-based oil

In particular, the nonvolatile polar hydrocarbon oil may be chosen from the list of oils below, and mixtures thereof:

- hydrocarbon-based plant oils such as liquid triglycerides of fatty acids containing from 4 to 10 carbon atoms, for instance heptanoic or octanoic acid triglycerides or jojoba oil;
- 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, isotridecyl isononanoate, diisostearyl malate, oleyl erucate or 2-octyldodecyl neopentanoate; isopropyl myristate;
- polyesters obtained by condensation of an unsaturated fatty acid dimer and/or trimer and of diol, such as those described in patent application FR 0 853 634, in particular such as dilinoleic acid and 1,4-butanediol. Mention may especially be made in this respect of the polymer sold by Biosynthis under the name Viscoplast 14436H (INCI name: Dilinoleic Acid/Butanediol Copolymer), or copolymers of polyols and of diacid dimers, and esters thereof, such as Hailuscent ISDA,
- fatty alcohols containing from 12 to 26 carbon atoms, which are preferably branched, for instance octyldodecanol, 2-butyloctanol, 2-hexyldecanol, 2-undecylpentadecanol, oleyl alcohol or isostearyl alcohol;
- higher C12-C22 fatty acids, such as oleic acid, linoleic acid and linolenic acid, and mixtures thereof;
- oils of plant origin, such as sesame oil (820.6 g/mol),
- fatty acids containing from 12 to 26 carbon atoms, for instance oleic acid;

- dialkyl carbonates, the two alkyl chains possibly being identical or different, such as dicaprylyl carbonate sold under the name Cetiol CC® by Cognis; and

- nonvolatile oils of high molecular mass, for example between 650 and 10 000 g/mol, for instance:

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

ii) ester oils 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 polyglycerol-2 triisostearate (MW = 965.58 g/mol);

c) aromatic esters such as tridecyl trimellitate (MW = 757.19 g/mol),

d) esters of C24-C28 branched fatty acids or fatty alcohols such as those described in patent application EP-A-0 955 039, and especially triisoarachidyl citrate (MW = 1033.76 g/mol), pentaerythrityl tetraisononanoate (MW = 697.05 g/mol), glyceryl triisostearate (MW = 891.51 g/mol), glyceryl tris(2-decyl)tetradecanoate (MW = 1143.98 g/mol), pentaerythrityl tetraisostearate (MW = 1202.02 g/mol), polyglyceryl-2 tetraisostearate (MW = 1232.04 g/mol) or else pentaerythrityl tetrakis(2-decyl)tetradecanoate (MW = 1538.66 g/mol),

e) esters and polyesters of a diol dimer and of a monocarboxylic or dicarboxylic acid, such as esters of a diol dimer and of a fatty acid and esters of a diol dimer and of a dicarboxylic acid dimer; 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®,

- and mixtures thereof.

The esters of a diol dimer and 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 esters of diol dimer and of dicarboxylic acid may be obtained from a dicarboxylic acid dimer derived in particular from the dimerization of an unsaturated fatty

acid especially of C_8 to C34, especially C_{12} to C22, in particular C_{16} to C20 and more particularly C_{18}.

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

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

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

Preferably, the composition according to the invention comprises at least one polar nonvolatile oil chosen from hydrocarbon-based polar oils, preferably chosen from ester oils and alcohol oils, and mixtures thereof.

In particular, the composition according to the invention comprises at least one nonvolatile ester oil, preferably with a molecular weight of greater than 650 g/mol, preferably chosen from aromatic esters such as tridecyl trimellitate.

Preferably, the ester oils are chosen from isononyl isononanoate, isotridecyl isononanoate, tridecyl trimellitate and diisostearyl malate.

Preferably, the alcohol oils are chosen from octyldodecanol and isostearyl alcohol.

Preferably, the polar nonvolatile oil is isostearyl alcohol.

Without wishing to be bound to any theory, it appears that the use of isostearyl alcohol makes it possible to lower the melting point of the gelling system and consequently makes it possible to prepare the compositions according to the invention at a lower temperature.

Preferably, the hydrocarbon-based nonvolatile polar oil is present in a total content of between 1% and 60%. Preferably, the hydrocarbon-based nonvolatile polar oil is present in a total content of between 3% and 50% by weight, preferably between 5% and 40%, more preferably between 7% and 20% and even more preferably between 10% and 15% by weight relative to the weight of the composition.

Preferably, the hydrocarbon-based nonvolatile polar oil is chosen from fatty monoalcohol or monohydroxylated alcohol oils containing from 12 to 26 carbon atoms.

Preferably, octyldodecanol and/or isostearyl alcohol are present in a total content of between 3% and 50% by weight, preferably between 5% and 40% and more preferably between 7% and 20% by weight relative to the weight of the composition.

Preferably, octyldodecanol and/or isostearyl alcohol are present in a total content of between 8% and 15% by weight relative to the weight of the composition.

Preferably, isostearyl alcohol is present in a total content of between 3% and 50%, by weight, preferably between 5% and 40%>, more preferably between 7% and 20%> and even more preferably between 8% and 15% by weight relative to the weight of the composition.

Nonvolatile fluoro oil

The nonvolatile oil may also be a fluoro oil.

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

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

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

According to one particularly preferred embodiment, the fluoro oil according to the invention is chosen from perfluoro oils.

As examples of perfluoro oils that may be used in the invention, mention may be made of perfluorodecalins and perfluoroperhydrophenanthrenes.

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

Hydrocarbon-based apolar oils

The composition according to the invention also comprises a hydrocarbon-based apolar oil, which is preferably nonvolatile.

According to the first and second variants, the composition advantageously comprises less than 35%, preferably less than 22% and more preferably less than 20% by weight of apolar nonvolatile oil(s), which are preferably hydrocarbon-based, relative to the total weight of the composition.

The composition comprises from 1% to 34.5% by weight of apolar nonvolatile oil(s), which are preferably hydrocarbon-based, relative to the total weight of the composition.

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

For the purposes of the present invention, the term "apolar oil" means an oil whose solubility parameter at 25°C, δ_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:

- δ_D characterizes the London dispersion forces derived from the formation of dipoles induced during molecular impacts;

- δ_p characterizes the Debye interaction forces between permanent dipoles and also the Keesom interaction forces between induced dipoles and permanent dipoles;

- δ_h characterizes the specific interaction forces (such as hydrogen bonding, acid/base, donor/acceptor, etc.); and

- δ_a is determined by the equation: $\delta_a = (\delta_p^2 + \delta_h^2)^{1/2}$.

The parameters δ_p, δ_h, δ_D and δ_a are expressed in $(J/cm^3)^{1/2}$.

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

The term "hydrocarbon-based ester oil" means a hydrocarbon-based oil comprising at least one ester group.

Preferably, the nonvolatile apolar hydrocarbon-based oil is free of oxygen atoms.

Preferably, the nonvolatile apolar hydrocarbon-based oil may be chosen from linear or branched hydrocarbons of mineral or synthetic origin, such as:

- liquid paraffin or derivatives thereof,

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

Preferably, the nonvolatile apolar hydrocarbon-based oil is isoeicosane.

According to one preferred embodiment, the composition according to the invention is free of hydrogenated polydecenes.

The composition according to the invention comprises at least 5%, preferably at least 7% and more preferably at least 10% by weight of apolar nonvolatile oil(s) relative to the total weight of the composition.

Volatile oils

Preferably, the composition according to the invention is free of volatile oil.

The term "volatile oil" means an oil (or nonaqueous medium) that can evaporate 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 nonzero vapor pressure at room temperature and atmospheric pressure, in particular having a vapor 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 1,300 Pa (0.1 to 10 mmHg).

Preferably, the composition according to the invention contains at least 70% by weight, preferably at least 80% by weight and preferably 90% by weight of nonvolatile oil relative to the total weight of said composition.

Advantageously, the composition according to the invention contains at least 60% by weight, preferably at least 70%> by weight, preferably at least 80%> by weight, more preferably at least 90%> by weight and advantageously at least 95% by weight of oil(s) relative to the total weight of said composition.

Advantageously, the composition according to the invention comprises less than 0.5% and better still less than 0.1% of wax, and even better still is totally free of wax. The reason for this is that such waxes would risk compromising the transparent appearance that is advantageously sought for a composition in accordance with the invention.

The wax under consideration is in general a lipophilic compound that is 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 use in 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 on thermal analysis (DSC) as described in standard ISO 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 DSC Q2000 by the company TA Instruments.

Preferably, the waxes have a heat of fusion AHf of greater than or equal to 70 J/g.

Preferably, the waxes comprise at least one crystallizable part, which is visible by X-ray observation.

The measuring protocol is as follows:

A sample of 5 mg of wax placed in a crucible is subjected to a first temperature rise ranging from -20°C to 120°C, at a heating rate of 10°C/minute, is then cooled from

120°C to -20°C at a cooling rate of 10°C/minute and is finally subjected to a second temperature rise ranging from -20°C to 120°C at a heating rate of 5°C/minute. During the second temperature rise, the following parameters are measured:

- the melting point (T_m) of the wax, as mentioned previously corresponding to the temperature of the most endothermic peak of the melting curve observed, representing the variation of the difference in power absorbed as a function of the temperature,

- AHf: the heat of fusion of the wax, corresponding to the integral entire melting curve obtained. This heat of fusion of the wax 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 composition according to the invention may also contain at least one "pasty fatty substance".

The term "pasty fatty substance" (also called "pasty compounds") refers to a lipophilic fatty compound with a reversible solid/liquid change of state and comprising, at a temperature of 23°C, a liquid fraction and a solid fraction.

In other words, the starting melting point of the pasty compound can be less than 23°C. The liquid fraction of the pasty compound measured at 23°C can 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.

Preferably, the pasty fatty substances have an end melting point of less than 60°C.

Preferably, the pasty fatty substances have a hardness of less than or equal to 6 MPa.

Preferably, the pasty fatty substances have, in the solid state, an anisotropic crystal organization, which is visible by X-ray observation.

For the purposes of the invention, the melting point corresponds to the temperature of the most endothermic peak observed on thermal analysis (DSC) as described in Standard ISO 11357-3; 1999. The melting point of a pasty substance or of a wax may be measured using a differential scanning calorimeter (DSC), for example the calorimeter sold under the name DSC Q2000 by the company TA Instruments.

As regards the measurement of the melting point and the determination of the end melting point, the sample preparation and measurement protocols are as follows:

A sample of 5 mg of pasty fatty substance, preheated to 80°C and withdrawn with magnetic stirring using a spatula that is also heated, is placed in a hermetic aluminum capsule, or a crucible. Two tests are performed to ensure the reproducibility of the results.

The measurements are performed on the abovementioned calorimeter. The oven is flushed with nitrogen. Cooling is performed by an RCS 90 heat exchanger. The sample is then subjected to the following protocol: it is first placed at a temperature of 20°C, and then subjected to a first temperature rise passing from 20°C to 80°C, at a heating rate of 5°C/minute, then is cooled from 80°C to -80°C at a cooling rate of 5°C/minute and finally subjected to a second temperature rise passing from -80°C to 80°C at a heating rate of 5°C/minute. During the second temperature rise, the variation in the difference between the power absorbed by the empty crucible and the crucible containing the sample of paste or wax as a function of the temperature is measured. The melting point of the compound is the value of the temperature corresponding to the top of the peak of the curve representing the variation in the difference in power absorbed as a function of the temperature.

The end melting point corresponds to the temperature at which 95% of the sample has melted.

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 in order to pass 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 crystalline 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 integral of the entire melting curve obtained using the abovementioned colorimeter, with a temperature rise of 5 or 10°C/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, constituted 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%,*

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 way as the heat of fusion consumed at 23°C.

As regards the measurement of the hardness, the sample preparation and measurement protocols are as follows:

The pasty fatty substance is placed in a mold 75 mm in diameter, which is filled to about 75% of its height. In order to overcome the thermal history and to control the crystallization, the mold is placed in a Votsch VC 0018 programmable oven, where it is first placed at a temperature of 80°C for 60 minutes, then cooled from 80°C to 0°C at a cooling rate of 5°C/minute, and then left at the stabilized temperature of 0°C for 60 minutes, and then subjected to a temperature rise ranging from 0°C to 20°C, at a heating rate of 5°C/minute, and then left at the stabilized temperature of 20°C for 180 minutes.

The compression force measurement is taken using a TA/TX2i texturometer from Swantech. The spindle used is chosen according to the texture:

- cylindrical steel spindle 2 mm in diameter for very rigid starting materials;
- cylindrical steel spindle 12 mm in diameter for sparingly rigid starting materials.

The measurement comprises three steps: a first step after automatic detection of the surface of the sample, where the spindle moves at a measuring speed of 0.1 mm/s, and penetrates into the pasty fatty substance to a penetration depth of 0.3 mm, the software notes the maximum force value reached; a second "relaxation" step where the spindle remains at this position for one second and the force is noted after 1 second of relaxation; finally, a third "withdrawal" step in which the spindle returns to its initial position at a speed of 1 mm/s, and the probe withdrawal energy (negative force) is noted.

The hardness value measured during the first step corresponds to the maximum compression force measured in newtons divided by the area of the texturometer cylinder expressed in mm^2 in contact with the pasty fatty substance. The hardness value obtained is expressed in megapascals or MPa.

AGENT FOR STRUCTURING THE FATTY PHASE

The composition comprises at least one polyamide resin and at least one gelling system comprising at least two lipophilic gelling agents, also known as "organogelling agents", as agents for structuring the fatty phase.

Preferably, the amount of structuring agents, comprising the polyamide resin and the gelling system, is between 17% and *30%* by weight relative to the total weight of the composition.

ORGANOGELLING AGENT

According to the invention, an "organogelling agent" is defined as comprising an organic compound whose molecules may be capable of establishing, between themselves, at least one physical interaction leading to self-aggregation of the molecules with formation of a three-dimensional macromolecular network that may be responsible for the gelation of the liquid fatty phase. The network may result from the formation of a network of fibrils (caused by the stacking or aggregation of organogelling molecules), which immobilizes the molecules of the liquid fatty phase. Depending on the nature of the organogelling agent, the interconnected fibrils have variable sizes that may range from a few nanometers up to 1 μιη or even several micrometers. These fibrils may occasionally combine to form strips or columns.

The term "gelation" means structuring or, more generally, thickening of the medium, which may lead according to the invention to a fluid to pasty or even solid consistency.

The ability to form this network of fibrils, and thus to gel the composition, depends on the nature (or chemical class) of the organogelling agent, on the nature of the substituents borne by its molecules for a given chemical class, and on the nature of the liquid fatty phase.

For example, this gelation is reversible under the action of an external stimulus such as the temperature.

The physical interactions are of diverse nature but may include co-crystallization. These physical interactions are, for example, interactions chosen from self-complementary hydrogen interactions, π interactions between unsaturated nuclei, dipolar interactions, and coordination bonds with organometallic derivatives. The establishment of these interactions may often be promoted by the architecture of the molecule, for example

by nuclei, unsaturations and the presence of asymmetric carbon. In general, each molecule of an organogelling agent can establish several types of physical interaction with a neighboring molecule. Thus, in one embodiment, the molecules of the organic gelling agent according to the invention may comprise at least one group that is capable of establishing hydrogen bonds, for example at least two groups that are capable of establishing hydrogen bonds; at least one aromatic nucleus, for example at least two aromatic nuclei; at least one bond with ethylenic unsaturation; and/or at least one asymmetric carbon. The groups that are capable of forming a hydrogen bond may be chosen, for example, from hydroxyl, carbonyl, amine, carboxylic acid, amide, benzyl, sulfonamide, carbamate, thiocarbamate, urea, thiourea, oxamido, guanidino and biguanidino groups.

The organogelling agents of the invention may be solid or liquid at room temperature (20°C) and at atmospheric pressure.

Among the lipophilic gelling agents that may be mentioned are combinations of at least one low molecular weight dialkyl N-acylglutamide, chosen especially from (C_2-C_6)dialkyl N-acylglutamides in which the acyl group comprises a linear C_8 to C_{22} alkyl chain such as lauroylglutamic acid dibutylamide (or dibutyl lauroyl glutamide), with at least one low molecular weight dialkyl N-acylglutamide containing a branched alkyl chain, chosen especially from (C_2-C6)dialkyl N-acylglutamides in which the acyl group comprises a branched C_8 to C_{22} alkyl chain such as N-2-ethylhexanoyl glutamic acid dibutylamide (or dibutyl ethylhexanoyl glutamide) and preferably with a solvent that is capable of forming hydrogen bonds with these two low molecular weight lipophilic gelling agents.

Preferably, the ratio of the lipophilic gelling agent chosen from dialkyl N-acylglutamides bearing a linear alkyl chain/lipophilic gelling agent chosen from dialkyl N-acylglutamides bearing a branched alkyl chain is between 1.5 and 5 and preferably between 1.7 and 5.

Preferably, the dialkyl N-acylglutamide with a linear alkyl chain is used in a content ranging from 0.1% to 10%, preferably 0.5% to 5% and more preferably 1.0% to 3.0% by weight relative to the total weight of the fatty phase.

Preferably, the dialkyl N-acylglutamide with a branched alkyl chain is used in an amount ranging from 0.1% to 10%, preferably 0.5% to 5% and more preferably 1.0% to 3.0% by weight relative to the total weight of the fatty phase.

More preferably, the total amount of the lipophilic gelling agents of low molecular weight N-acylglutamic acid diamide type is preferably between 0.5% and 7% by weight relative to the total weight of the fatty phase.

Lauroylglutamic acid dibutylamide is sold by the company Ajinomoto under the name GP-1, of INCI name: Dibutyl Lauroyl Glutamide, and N-2-ethylhexanoylglutamic acid dibutylamide is sold or manufactured by the company Ajinomoto under the name EB-21, of INCI name: Dibutyl Ethylhexanoyl Glutamide. Such a compound is described in patent application JP2005-298635.

The solvent that is capable of forming hydrogen bonds with the gelling agents is a protic solvent preferentially chosen, for example, from alcohols, monoalcohols, dialcohols, acids and esters.

Preferably, the solvent that is capable of forming hydrogen bonds with the lipophilic gelling agents is chosen from C_{2}-C_{5} glycols such as propylene glycol, butylene glycols and pentene glycols. This solvent may also be chosen from octyldodecanol and isostearyl alcohol. The amount of solvents capable of forming hydrogen bonds ranges from 3% to 50% by weight, preferably between 5% and 40% and more preferably from 7% to 20% by weight relative to the total weight of the fatty phase.

Preferentially, the solvent is a fatty alcohol, particularly chosen from fatty alcohols with a fatty chain length of between 12 and 28 carbon atoms, preferentially between 14 and 22 and better still between 16 and 20 carbon atoms.

Even more preferentially, the solvent is a branched fatty-chain alcohol.

The compositions according to the invention may also comprise at least one other lipophilic gelling agent. This other lipophilic gelling agent may be chosen from fatty acid esters of dextrin such as dextrin palmitates, especially those sold under the names Rheopearl TL® or Rheopearl KL® by the company Chiba Flour; hydroxylated fatty acids, such as hydroxystearic acid, glyceryl esters such as glyceryl behenate/isostearate/eicosadioate.

POLYAMIDE RESIN

The composition according to the invention comprises at least one polyamide resin chosen from hydrocarbon-based polyamides and silicone polyamides.

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

For the purposes of the invention, the term "polyamide" means a compound containing at least two repeating amide units, preferably at least three repeating amide units and better still ten repeating amide units.

Hydrocarbon-based polyamide

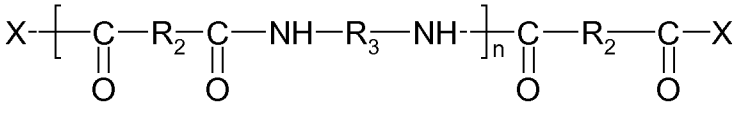
The term "hydrocarbon-based polyamide" means a polyamide formed essentially from, or even consisting of, carbon and hydrogen atoms, and optionally oxygen and nitrogen atoms, and not containing any silicon or fluorine atoms. It may contain alcohol, ester, ether, carboxylic acid, amine and/or amide groups.

For the purposes of the invention, the term "functionalized chains" means an alkyl chain comprising one or more functional groups or reagents chosen especially from hydroxyl, ether, ester, oxyalkylene and polyoxyalkylene groups.

Advantageously, this polyamide of the composition according to the invention has a weight-average molecular mass of less than 100 000 g/mol (especially ranging from 1000 to 100 000 g/mol), in particular less than 50 000 g/mol (especially ranging from 1000 to 50 000 g/mol) and more particularly ranging from 1000 to 30 000 g/mol, preferably from 2000 to 20 000 g/mol and better still from 2000 to 10 000 g/mol.

This polyamide is insoluble in water, especially at 25°C.

According to a first embodiment of the invention, the polyamide used is a polyamide of formula (I):

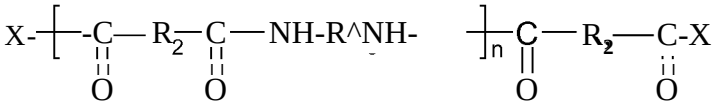


(I)

in which X represents a group $-N(Ri)_2$ or a group -ORi in which Ri is a linear or branched C_8 to C_{22} alkyl radical which may be identical or different, R_2 is a C_{28}-C_{42} diacid dimer residue, R_3 is an ethylenediamine radical and n is between 2 and 5;

- and mixtures thereof.

According to a particular mode, the polyamide used is an amide-terminated polyamide of formula (Ia)

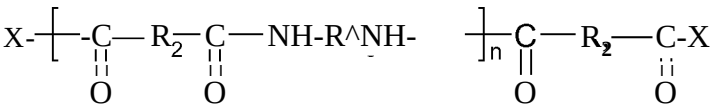


(la)

in which X represents a group -N(Ri) $_2$ in which Ri is a linear or branched C_8 to C_{22} alkyl radical which may be identical or different, R_2 is a C_2s-C_{42} diacid dimer residue, R_3 is an ethylenediamine radical and n is between 2 and 5;

- and mixtures thereof.

As an amide-terminated polyamide compound such as those described in patent application US 2009/0 280 076, and in particular an amide-terminated polyamide of formula (la)

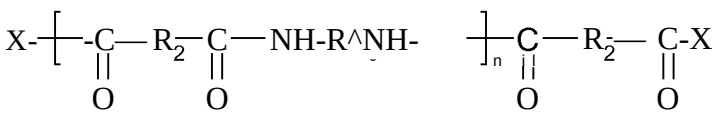


(la)

in which X represents a group -N(Ri)$_2$ in which Ri is a linear or branched Cs to C_{22}, preferably C_8 to C_{2o}, preferably C_{14} to C_{2o} and more preferentially C_{14} to C_{18} and better still C_{18} alkyl radical, which may be identical or different, R_2 is a C_2s-C_{42} diacid dimer residue, preferably a dilinoleic acid dimer residue, R_3 is an ethylenediamine radical, and n is between 2 and 5 and preferably between 3 and 4; mention may be made of the compound of formula (la) whose INCI name is bis-dioctadecylamide dimer dilinoleic acid/ethylenediamine copolymer.

As a specific example of an amide-terminated polyamide that may be used, mention may be made of the compound Haimalate PAM sold by the company Kokyu Alcohol Kogyo, which is in combination with diisostearyl malate and whose INCI name is diisostearyl malate (and) bis-dioctadecylamide dimer dilinoleic acid/ethylenediamine copolymer.

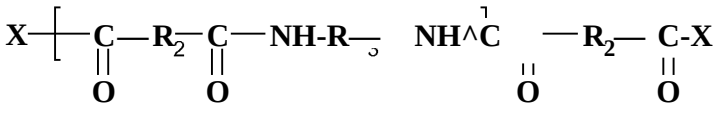
According to another embodiment of the invention, the polyamide is an amide ester-terminated polyamide of formula (lb)



(Ib)

in which X represents a group -ORi in which Ri is a linear or branched C_8 to C_{22} and preferably C_{16} to C_{22} alkyl radical which may be identical or different, R_2 is a C_2s-C_{42} diacid dimer residue, R_3 is an ethylenediamine radical and n is between 2 and 5.

As polyamide compounds of formula (lb)



(lb)

in which X represents a group **-ORi** in which **Ri** is a linear or branched C_8 to $\mathbf{C_{22}}$ and preferably C_{16} to $\mathbf{C_{22}}$ alkyl radical which may be identical or different, $\mathbf{R_2}$ is a **C28-C42** diacid dimer residue, $\mathbf{R_3}$ is an ethylenediamine radical and n is between 2 and 5, mention may be made of the commercial products sold by the company Arizona Chemical under the names Uniclear 80 and Uniclear 100 or Uniclear 80 V, Uniclear 100 V and Uniclear 100 VG, the INCI name of which is Ethylenediamine/stearyl dimer dilinoleate copolymer. They are sold, respectively, in the form of a gel containing 80% active material in a mineral oil and at 100% active material. They have a softening point of from 88 to 94°C. These commercial products are a mixture of copolymers of a C_{36} diacid coupled with ethylenediamine, having a weight-average molecular mass of about 6000 g/mol. The terminal ester groups result from the esterification of the remaining acid end groups with cetyl alcohol, stearyl alcohol or mixtures thereof (also known as cetylstearyl alcohol).

Preferably, the total amount of polyamide resin in the compositions used according to the invention is between 0.1% and 50%> by weight, preferably between 2% and 45%, by weight, or better still between 5% and 40% by weight and preferably between 10% and 25% by weight of active material relative to the total weight of the composition (limits inclusive).

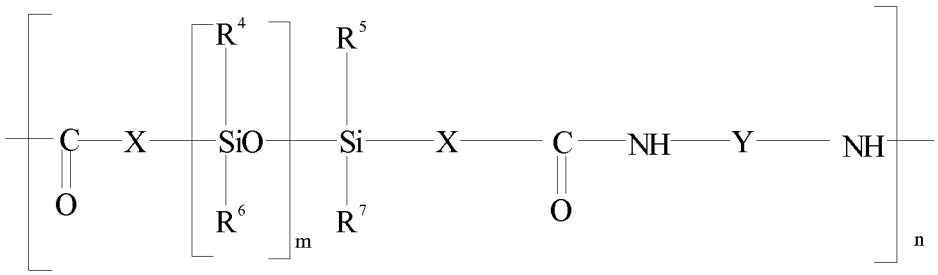
Advantageously, the total amount of structuring agents as defined previously present in the compositions used according to the invention is between 0.1% and 60% by weight, preferably between 2% and 50%, preferably between 5% and 40% and advantageously between 12% and 30% by weight of active material relative to the total weight of said composition.

According to another embodiment of the invention, the polyamide is a silicone polyamide.

Silicone polyamide

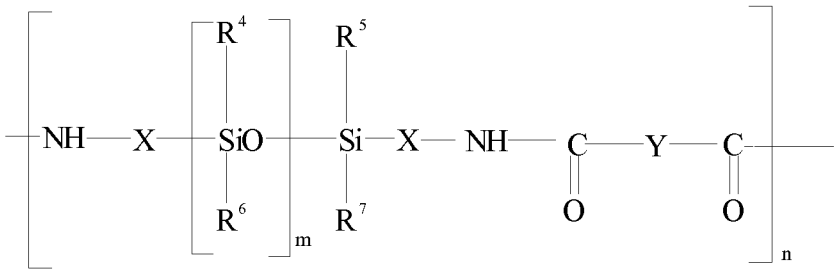
The silicone polyamides of the composition are preferably solid at room temperature (25°C) and atmospheric pressure (760 mmHg).

The silicone polyamides may be more particularly polymers comprising at least one unit of formula (III) or (IV):



(m)

or

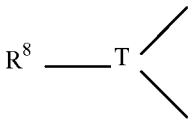


(IV)

in which:

- R^4, R^5, R^6 and R^7, which may be identical or different, represent a group chosen from:
  - linear, branched or cyclic, saturated or unsaturated, C_1-C40 hydrocarbon-based groups, possibly containing in their chain one or more oxygen, sulfur and/or nitrogen atoms, and possibly being partially or totally substituted with fluorine atoms,
  - C_6 to Cio aryl groups, optionally substituted with one or more Ci to C_4 alkyl groups,
  - polyorganosiloxane chains possibly containing one or more oxygen, sulfur and/or nitrogen atoms,
- the groups X, which may be identical or different, represent a linear or branched Ci to C30 alkylenediyl group, possibly containing in its chain one or more oxygen and/or nitrogen atoms;

- Y is a saturated or unsaturated C_1 to C_{50} linear or branched alkylene, arylene, cycloalkylene, alkylarylene or arylalkylene divalent group, which may comprise one or more oxygen, sulfur and/or nitrogen atoms, and/or may bear as substituent one of the following atoms or groups of atoms: fluorine, hydroxyl, C_3 to C_8 cycloalkyl, C_1 to C_{40} alkyl, C_5 to C_{10} aryl, phenyl optionally substituted with one to three C_1 to C_3 alkyl, C_1 to C_3 hydroxyalkyl and C_1 to C_6 aminoalkyl groups, or
Y represents a group corresponding to the formula:



in which:

- T represents a linear or branched, saturated or unsaturated, C_3 to C_{24} trivalent or tetravalent hydrocarbon-based group optionally substituted with a polyorganosiloxane chain, and possibly containing one or more atoms chosen from O, N and S, or T represents a trivalent atom chosen from N, P and Al, and

- R^8 represents a linear or branched C1-C50 alkyl group or a polyorganosiloxane chain, possibly comprising one or more ester, amide, urethane, thiocarbamate, urea, thiourea and/or sulfonamide groups, which may possibly be linked to another chain of the polymer;

- n is an integer ranging from 2 to 500 and preferably from 2 to 200, and m is an integer ranging from 1 to 1000, preferably from 1 to 700 and better still from 6 to 200.

According to the invention, 80% of the groups R^4, R^5, R^6 and R^7 of the polymer are preferably chosen from methyl, ethyl, phenyl and 3,3,3-trifluoropropyl groups. According to another embodiment, 80% of the groups R^4, R^5, R^6 and R^7 of the polymer are methyl groups.

According to the invention, Y can represent various divalent groups, furthermore optionally comprising one or two free valencies to establish bonds with other moieties of the polymer or copolymer. Preferably, Y represents a group chosen from:

a) linear C_1 to C_{20} and preferably C_1 to C_{10} alkylene groups,

b) branched C_{30} to C_{50} alkylene groups possibly comprising rings and unconjugated unsaturations,

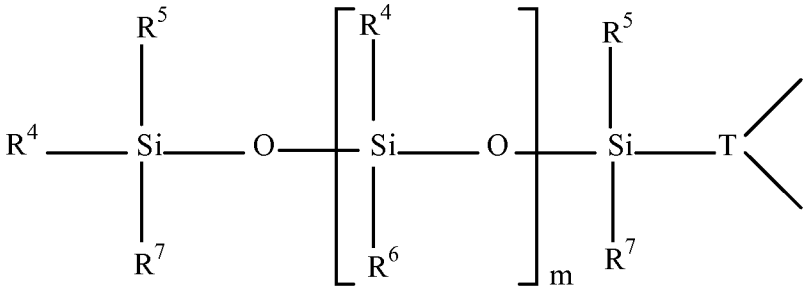
c) C5-C6 cycloalkylene groups,

d) phenylene groups optionally substituted with one or more Ci to C40 alkyl groups,

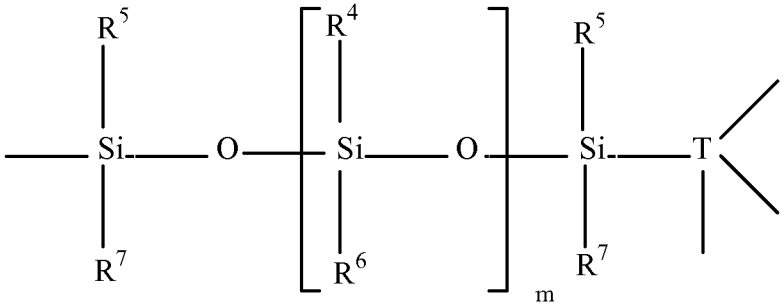
e) Ci to C_{20} alkylene groups comprising from 1 to 5 amide groups,

f) Ci to C_{20} alkylene groups comprising one or more substituents chosen from hydroxyl, C_3 to C_8 cycloalkane, Ci to C_3 hydroxyalkyl and Ci to C_6 aminoalkyl groups,

g) polyorganosiloxane chains of formula:



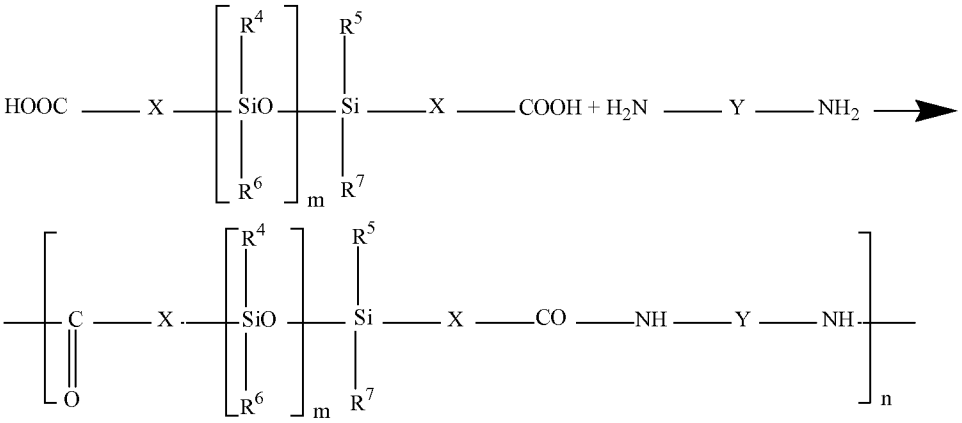
or



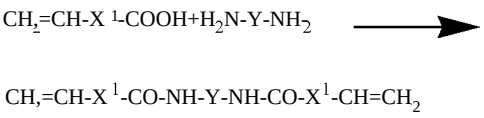
in which R^4, R^5, R^6, R^7, T and m are as defined above.

Such a unit may be obtained:

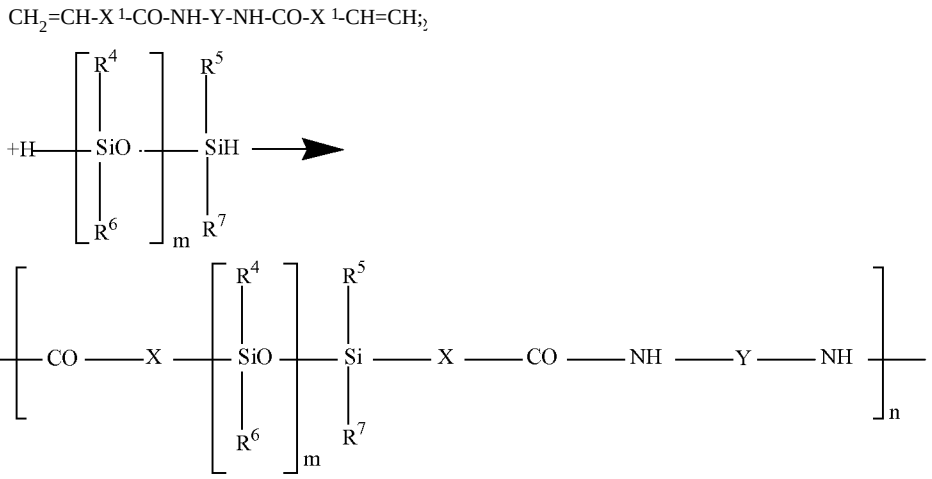
- either by a condensation reaction between a silicone containing α, ω-carboxylic acid ends and one or more diamines, according to the following reaction scheme:



- or by reaction of two molecules of a-unsaturated carboxylic acid with a diamine according to the following reaction scheme:

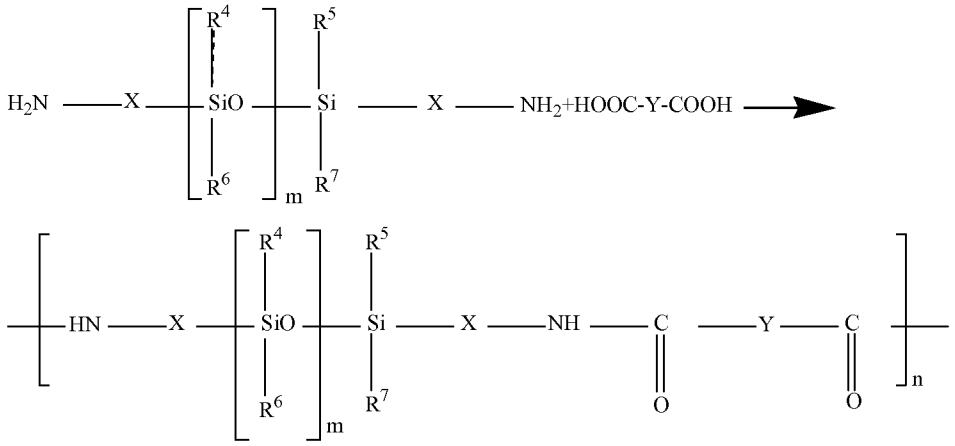


followed by the addition of a siloxane to the ethylenic unsaturations, according to the following scheme:



in which X^1-$(CH_2)_2$- corresponds to X defined above and Y, R^4, R^5, R^6, R^7 and m are as defined above;

- or by reaction of a silicone containing α, ω-NH_2 ends and a diacid of formula HOOC-Y-COOH according to the following reaction scheme:



In these silicone polyamides of formula (III) or (IV), m is in the range from 1 to 700, in particular from 15 to 500 and especially from 50 to 200, and n is in particular in the range from 1 to 500, preferably from 1 to 100 and better still from 4 to 25,

- X is preferably a linear or branched alkylene chain containing from 1 to 30 carbon atoms, in particular 1 to 20 carbon atoms, especially from 5 to 15 carbon atoms and more particularly 10 carbon atoms, and
- Y is preferably an alkylene chain that is linear or branched, or which may comprise rings and/or unsaturations, containing from 1 to 40 carbon atoms, in particular 1 to 20 carbon atoms and better still from 2 to 6 carbon atoms, in particular 6 carbon atoms.

In formulae (III) and (IV), the alkylene group representing X or Y can optionally contain in its alkylene portion at least one of the following members:

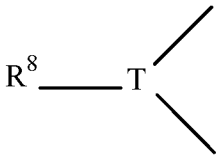
- 1 to 5 amide, urea, urethane or carbamate groups,
- a C_5 or C_6 cycloalkyl group, and
- a phenylene group optionally substituted with 1 to 3 identical or different Ci to C_3 alkyl groups.

In formulae (III) and (IV), the alkylene groups may also be substituted with at least one component chosen from the group consisting of:

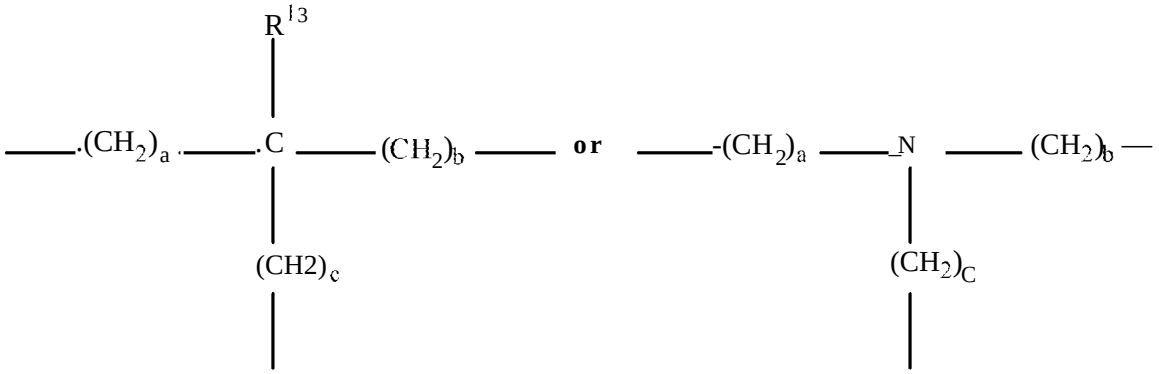
- a hydroxyl group,
- a C_3 to C_8 cycloalkyl group,
- one to three Ci to C_{40} alkyl groups,
- a phenyl group optionally substituted with one to three Ci to C_3 alkyl groups,
- a Ci to C_3 hydroxyalkyl group, and

- a Ci to C_6 aminoalkyl group.

In these formulae (III) and (IV), Y may also represent:



in which R^8 represents a polyorganosiloxane chain and T represents a group of formula:

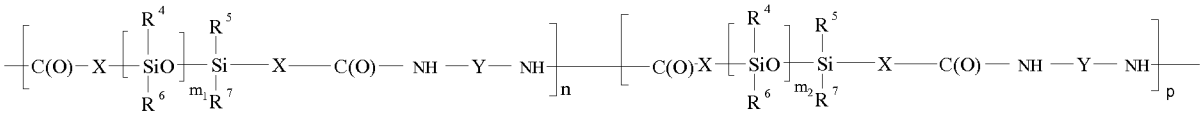


in which a, b and c are, independently, integers ranging from 1 to 10, and R^{13} is a hydrogen atom or a group such as those defined for R^4, R^5, R^6 and R^7.

In formulae (III) and (IV), R^4, R^5, R^6 and R^7 preferably represent, independently, a linear or branched Ci to C_4o alkyl group, preferably a CH_3, C_2H_5, nC_3H_7 or isopropyl group, a polyorganosiloxane chain or a phenyl group optionally substituted with one to three methyl or ethyl groups.

As has been seen previously, the polymer may comprise identical or different units of formula (III) or (IV).

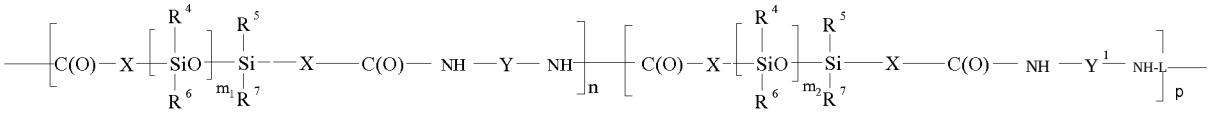
Thus, the polymer may be a polyamide containing several units of formula (III) or (IV) of different lengths, i.e. a polyamide corresponding to formula (V):



(V)

in which X, Y, n and R^4 to R^7 have the meanings given above, mi and m_2, which are different, are chosen in the range from 1 to 1000, and p is an integer ranging from 2 to 300.

In this formula, the units may be structured to form either a block copolymer, or a random copolymer or an alternating copolymer. In this copolymer, the units may be not only of different lengths, but also of different chemical structures, for example containing different groups Y. In this case, the polymer may correspond to formula VI:

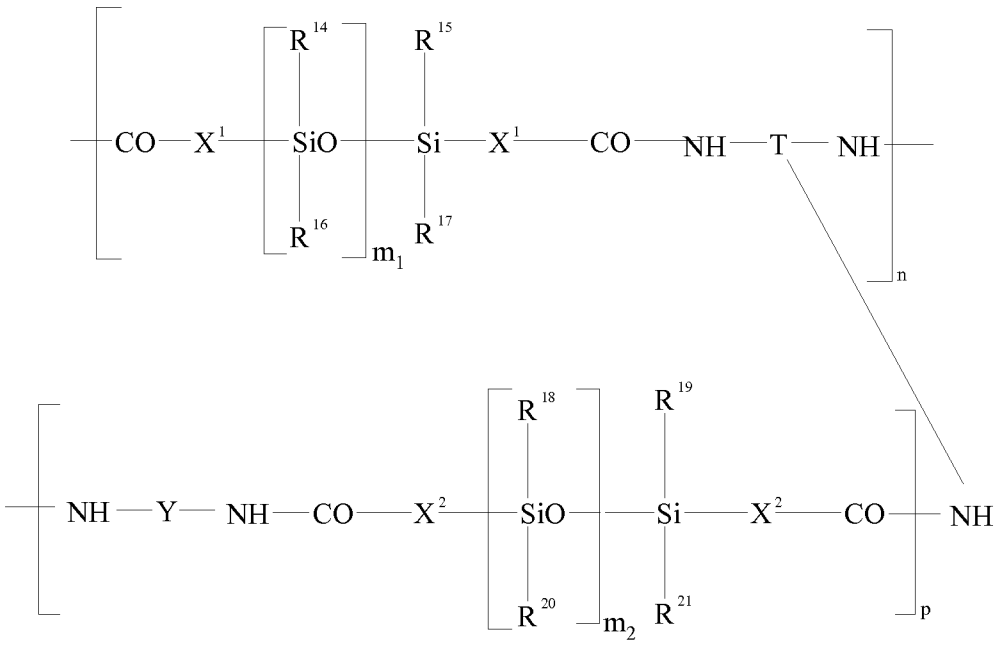


(VI)

in which R^4 to R^7, X, Y, m_1, m_2, n and p have the meanings given above and Y^1 is different than Y but chosen from the groups defined for Y. As previously, the various units may be structured to form either a block copolymer, or a random copolymer or an alternating copolymer.

In this first embodiment of the invention, the silicone polyamide may also consist of a grafted copolymer. Thus, the polyamide containing silicone units may be grafted and optionally crosslinked with silicone chains containing amide groups. Such polymers may be synthesized with trifunctional amines.

In this case, the polymer may comprise at least one unit of formula (VII):

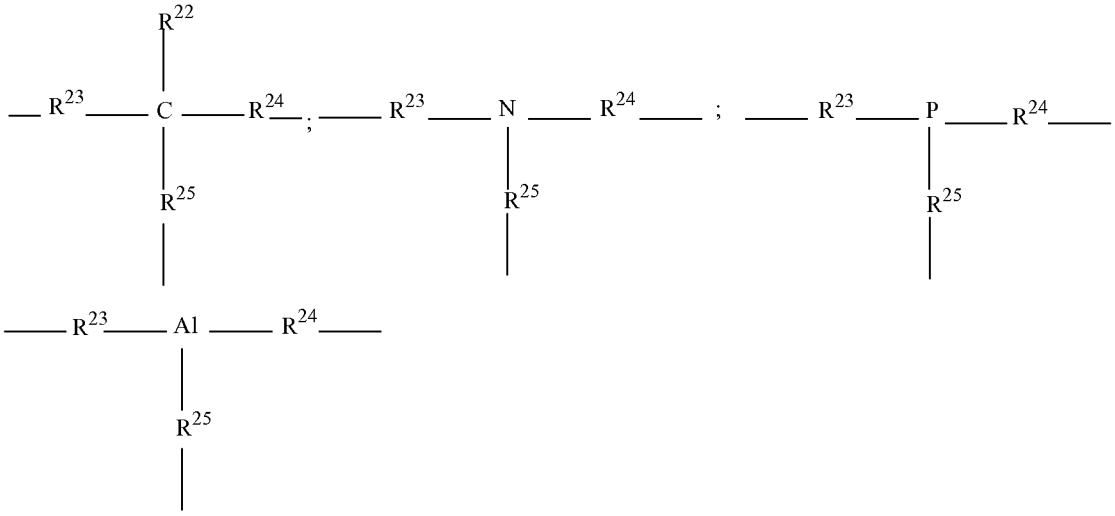


(VII)

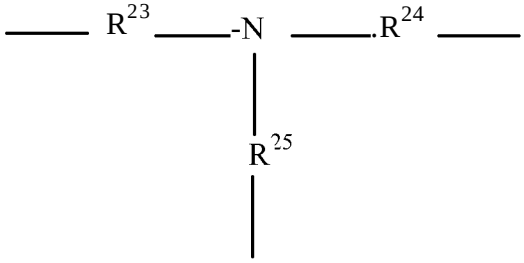
in which X^1 and X^2, which are identical or different, have the meaning given for X in formula (III), n is as defined in formula (III), Y and T are as defined in formula (III), R^{14} to R^{21} are groups chosen from the same group as R^4 to R^7, mi and m_2 are numbers in the range from 1 to 1000, and p is an integer ranging from 2 to 500.

In formula (VII), it is preferred that:

- p is in the range from 1 to 25 and better still from 1 to 7,
- R^{14} to R^{21} are methyl groups,
- T corresponds to one of the following formulae:



in which R^{22} is a hydrogen atom or a group chosen from the groups defined for R^4 to R^7, and R^{23}, R^{24} and R^{25} are, independently, linear or branched alkylene groups, and more preferably corresponds to the formula:



in particular with R^{23}, R^{24} and R^{25} representing $-CH_2-CH_2-$,

- mi and m_2 are in the range from 15 to 500 and better still from 15 to 45,
- Xi and X_2 represent $-(CH_2)_{10}-$, and
- Y represents $-CH_2-$.

As has been seen previously, the siloxane units may be in the main chain or backbone of the polymer, but they may also be present in grafted or pendent chains. In the main chain, the siloxane units may be in the form of segments as described above. In the side or grafted chains, the siloxane units may appear individually or in segments.

According to one preferred embodiment variant of the invention, a copolymer comprising units of formula (III) or (IV) and hydrocarbon-based polyamide units may be used. In this case, the polyamide-silicone units may be located at the ends of the hydrocarbon-based polyamide.

According to a preferred embodiment, the silicone polyamide comprises units of formula III.

Preferably, according to this embodiment, the groups R^4, R^5, R^6 and R^7 represent methyl groups, one from among X and Y represents an alkylene group containing 6 carbon atoms and the other represents an alkylene group containing 11 carbon atoms.

n is an integer ranging from 2 to 500, and n represents the degree of polymerization DP of the polymer.

As examples of such silicone polyamides, mention may be made of the compounds sold by the company Dow Corning under the names DC 2-8179 (DP 100) and DC 2-8178 (DP 15), the INCI name of which is Nylon-61 1/dimethicone copolymer, i.e. Nylon-61 1/dimethicone copolymers.

Advantageously, the composition used according to the invention comprises at least one polydimethylsiloxane block polymer of general formula (I) with an m value of about 100.

The index "m" corresponds to the degree of polymerization of the silicone part of the polymer.

More preferably, the composition used according to the invention comprises at least one polymer comprising at least one unit of formula (III) in which m ranges from 50 to 200, in particular from 75 to 150 and is preferably about 100.

More preferably, R^4, R^5, R^6 and R^7 independently represent a linear or branched Ci to C40 alkyl group, preferably a group CH_3, C_2H_5, n-C_3H_7 or isopropyl in formula (III).

As examples of silicone polymers that may be used, mention may be made of one of the silicone polyamides obtained in accordance with Examples 1 to 3 of document US-A-5 981 680.

According to a preferred mode, use is made of the silicone polyamide polymer sold by the company Dow Corning under the name DC 2-8179 (DP 100).

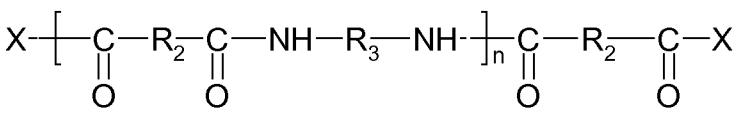
The silicone polymers and/or copolymers used in the composition of the invention advantageously have a temperature of transition from the solid state to the liquid state ranging from 45°C to 190°C. Preferably, they have a temperature of transition from the solid state to the liquid state ranging from 70 to 130°C and better still from 80°C to 105°C.

The silicone polyamide may be present in the composition in a total content ranging from 5% to 50% by weight relative to the total weight of the composition, preferably ranging from 5% to 40% by weight, better still ranging from 5% to 30% by weight and preferably ranging from 5% to 25% by weight relative to the total weight of said composition.

The silicone polymers and/or copolymers used in the composition of the invention advantageously have a temperature of transition from the solid state to the liquid state ranging from 45°C to 190°C. Preferably, they have a temperature of transition from the solid state to the liquid state ranging from 70 to 130°C and better still from 80°C to 105°C.

According to one particular mode, the composition according to the invention comprises a structuring polymer comprising at least one:

(i) polyamide of formula (I)



(Ib)

in which X represents a group -ORi in which Ri is a linear or branched C_8 to C_{22} and preferably C_{16} to C_{22} alkyl radical which may be identical or different, R_2 is a C_{28}-C_{42} diacid dimer residue, R_3 is an ethylenediamine radical and n is between 2 and 5, and

(ii) a combination

- of a (C_2-C_6)dialkyl N-acylglutamide in which the acyl group comprises a linear C_8 to C_{22} alkyl chain, preferably N-lauroylglutamic acid dibutylamide, and

- of a (C_2-C_6)dialkyl N-acylglutamide in which the acyl group comprises a branched C_8 to C_{22} alkyl chain, preferably N-2-ethylhexanoylglutamic acid dibutylamide.

According to one preferred embodiment, the structuring system comprises an amide-terminated polyamide, preferably the compound whose INCI name is Diisostearyl malate (and) bis-dioctadecylamide dimer dilinoleic acid/ethylenediamine copolymer sold by the company Kokyu Alcohol Kogyo under the name Haimalate PAM, and a combination of N-lauroylglutamic acid dibutylamide and of N-2-ethylhexanoylglutamic acid dibutylamide.

According to another preferred embodiment, the structuring system comprises an ester-terminated polyamide, preferably the compound whose INCI name is Ethylenediamine/stearyl dimer dilinoleate copolymer sold by the company Arizona Chemical under the name Uniclear 100 VG, and a combination of N-lauroylglutamic acid dibutylamide and of N-2-ethylhexanoylglutamic acid dibutylamide.

FORM OF THE COMPOSITION

The base of the composition according to the invention is solid, and the resulting composition is advantageously a cosmetic product, preferably a lipstick. This product may be in the form of a stick or cast in a dish, for example. According to one preferred embodiment, it is a lipstick or a lip balm in stick form.

Auxiliary agents

Nacres

Advantageously, the fatty phase comprises less than 0.5% and better still less than 0.1% of nacres, and even better still is free of nacres. The reason for this is that such nacres would risk compromising the transparent appearance that is advantageously sought for a composition in accordance with the invention.

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

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

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

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

The nacres may more particularly have a yellow, pink, red, bronze, orangey, brown, gold and/or coppery color or glint.

As illustrations of nacres that may be used in the context of the present invention, mention may be made in particular of gold-colored nacres sold especially by the company Engelhard under the name Brilliant gold 212G (Timica), Gold 222C (Cloisonne), Sparkle gold (Timica), Gold 4504 (Chromalite) and Monarch gold 233X (Cloisonne); the bronze nacres sold especially by the company Merck under the names 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 names Orange 363C (Cloisonne) and Orange MCR 101 (Cosmica) and by the company Merck under the names Passion orange (Colorona) and Matte orange (17449) (Microna); the brown-tinted nacres sold especially by the company Engelhard under the names Nu-antique copper 340XB (Cloisonne) and Brown CL4509 (Chromalite); the nacres with a copper glint sold especially by the company Engelhard under the name Copper 340A (Timica); the nacres with a red glint sold especially by the company Merck under the name Sienna fine (17386) (Colorona); the nacres with a yellow glint sold especially by the company Engelhard under the name Yellow (4502) (Chromalite); the red-tinted nacres with a golden glint sold especially by the company Engelhard under the name Sunstone G O12 (Gemtone); the pink nacres sold especially by the company Engelhard under the name Tan opale G005 (Gemtone); the black nacres with a golden glint 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 glint sold especially by the company Merck under the name Xirona Silver; and the golden-green pinkish-orange nacres sold especially by the company Merck under the name Indian summer (Xirona), and mixtures thereof.

Filler

Advantageously, the fatty phase comprises less than 0.5% and better still less than 0.1% of fillers, and even better still is free of fillers. The reason for this is that such fillers would risk compromising the transparent appearance that is advantageously sought for a composition in accordance with the invention.

The term "fillers" should be understood as meaning colorless or white, mineral or synthetic particles of any shape, which are insoluble in the medium of the composition, irrespective of the temperature at which the composition is manufactured. These fillers serve especially to modify the rheology or the texture of the composition.

The fillers may be mineral or organic and of any shape, platelet-shaped, spherical or oblong, irrespective of the crystallo graphic form (for example lamellar, cubic, hexagonal, orthorhombic, etc.). Mention may be made of talc, mica, silica, kaolin, polyamide (Nylon®) powder (Orgasol® from Atochem), poly -P-alanine powder and polyethylene powder, powders of tetrafluoroethylene polymers (Teflon®), lauroyllysine, starch, boron nitride, expanded 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 (for example Tospearls® from Toshiba), 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.

Other additional cosmetic ingredients

The composition according to the invention may also comprise any additional

cosmetic ingredient that may be chosen in particular from sunscreens 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 envisioned addition.

The composition according to the invention may be advantageously used for making up the skin and/or the lips depending on the nature of the ingredients used. In particular, the composition used according to the invention may be in the form of a solid foundation, a lipstick or lip paste, a lip balm, a concealer product, an eye contour product, an eyeshadow or a body makeup product.

In particular, the composition according to the invention may be in the form of a lip makeup product such as a lipstick or a pencil, optionally having care or treating properties. It may be in the form of an anhydrous stick.

The composition according to the invention may be obtained via the process comprising the following steps:

- mixing together the oils and the polyamide resin, preferably at a temperature of about 100 to 125°C, preferably while checking to ensure that the mixture obtained is homogeneous,

- preparing the gelling system,

- introducing the gelling system into the fatty phase containing the polyamide resin,

- casting the obtained composition in a conditioning unit.

The composition obtained is hot-cast, preferably at a temperature of between 95°C and 115°C, into a conditioning unit that is preferably a metal mold capable of giving it the final shape (for example as a stick), and the whole may be left to cool to room temperature or to -20°C, for example for 20 minutes to 1 hour.

The composition used according to the invention is in particular a lipstick.

The composition according to the invention may also be used as a shell composition in a core-shell product.

The present invention is also directed toward a core-shell product comprising a first composition according to the invention forming the shell and a second composition, different from the first composition, comprising the core.

In this case, the core composition of the core-shell product comprises at least one oil.

Volatile oil

The core composition may comprise at least one volatile oil.

The volatile oil may be a silicone oil, a hydrocarbon-based oil or a fluoro oil.

Nonvolatile oils

The core composition according to the invention may comprise at least one other nonvolatile oil chosen from nonvolatile hydrocarbon-based oils and/or silicone oils and/or fluoro oils, and preferably from hydrocarbon-based oils.

Besides the oils described previously, the core composition may also comprise at least one fatty substance that is not liquid at room temperature (25 °C) and at atmospheric pressure, known as a solid fatty substance, chosen from waxes and pasty fatty substances.

Pasty compound

The pasty compound is preferably chosen from synthetic compounds and compounds of vegetable origin. A pasty compound may be obtained by synthesis from starting products of plant origin.

The pasty compound is advantageously chosen from:

- lanolin and derivatives thereof;
- petroleum jelly, in particular the product whose INCI name is petrolatum and which is sold under the name Ultima White PET USP by the company Penreco,
- polyol ethers chosen from ethers of pentaerythritol and of polyalkylene glycol, ethers of fatty alcohol and of sugar, and mixtures thereof, the ethers of pentaerythritol and of polyethylene glycol comprising 5 oxyethylene units (5 OE) (CTFA name: PEG-5 Pentaerythrityl Ether), polypropylene glycol pentaerythrityl ether comprising five oxypropylene (5 OP) units (CTFA name: PEG-5 Pentaerythrityl Ether) and mixtures thereof, and more especially the mixture PEG-5 Pentaerythrityl Ether, PPG-5 Pentaerythrityl Ether and soybean oil, sold under the name Lanolide by the company Vevy,

which is a mixture in which the constituents are in a 46/46/8 weight ratio: 46% PEG-5 Pentaerythrityl Ether, 46% PPG-5 Pentaerythrityl Ether and 8% soybean oil;

- polymeric or nonpolymeric silicone compounds,
- polymeric or nonpolymeric fluoro compounds,
- vinyl polymers, especially:
  - olefin homopolymers and copolymers,
  - hydrogenated diene homopolymers and copolymers,
  - linear or branched oligomers which are homopolymers or copolymers of alkyl (meth)acrylates preferably containing a C8-C30 alkyl group,
  - oligomers which are homopolymers and copolymers of vinyl esters containing C8-C30 alkyl groups,
  - oligomers which are homopolymers and copolymers of vinyl ethers containing C8-C30 alkyl groups;
- liposoluble polyethers resulting from the polyetherification between one or more C2-C100 and preferably C2-C50 diols,
- esters;
- and/or mixtures thereof.

The pasty compound is preferably a polymer, especially a hydrocarbon-based polymer.

Among the liposoluble polyethers that are particularly preferred are copolymers of ethylene oxide and/or of propylene oxide with C6-C30 long-chain alkylene oxides, more preferably such that the weight ratio of the ethylene oxide and/or of the propylene oxide to the alkylene oxides in the copolymer is from 5:95 to 70:30. In this family, mention will be made especially of copolymers such that the long-chain alkylene oxides are arranged in blocks having an average molecular weight from 1000 to 10 000, for example a polyoxyethylene/polydodecyl glycol block copolymer such as the ethers of dodecanediol (22 mol) and of polyethylene glycol (45 OE) sold under the brand name Elfacos ST9 by Akzo Nobel.

Among the esters, the following are especially preferred:

- esters of a glycerol oligomer, especially diglycerol esters, in particular condensates of adipic acid and of glycerol, for which some of the hydroxyl groups of the glycerols have reacted with a mixture of fatty acids such as stearic acid, capric acid, stearic

acid and isostearic acid, and 12-hydroxystearic acid, preferably such as bis-diglyceryl polyacyladipate-2 sold under the brand name Softisan 649 by the company Sasol,

- vinyl ester homopolymers containing $_{C8-C30}$ alkyl groups, such as polyvinyl laurate (sold especially under the reference Mexomer PP by the company Chimex) and arachidyl propionate sold under the brand name Waxenol 801 by Alzo,
- phytosterol esters,
- fatty acid triglycerides and derivatives thereof, for instance triglycerides of fatty acids, which are especially C_{10}-C_{18}, and partially or totally hydrogenated such as those sold under the reference Softisan 100 by the company Sasol,
- pentaerythritol esters,
- noncrosslinked polyesters resulting from polycondensation between a linear or branched $_{C4-C50}$ dicarboxylic acid or polycarboxylic acid and a $_{C2-C50}$ diol or polyol,
- aliphatic esters of an ester, resulting from the esterification of an aliphatic hydroxycarboxylic acid ester with an aliphatic carboxylic acid. Preferably, the aliphatic carboxylic acid comprises from 4 to 30 and preferably from 8 to 30 carbon atoms. It is preferably chosen from hexanoic acid, heptanoic acid, octanoic acid, 2-ethylhexanoic acid, nonanoic acid, decanoic acid, undecanoic acid, dodecanoic acid, tridecanoic acid, tetradecanoic acid, pentadecanoic acid, hexadecanoic acid, hexyldecanoic acid, heptadecanoic acid, octadecanoic acid, isostearic acid, nonadecanoic acid, eicosanoic acid, isoarachidic acid, octyldodecanoic acid, heneicosanoic acid and docosanoic acid, and mixtures thereof. The aliphatic carboxylic acid is preferably branched. The aliphatic hydroxycarboxylic acid ester is advantageously derived from a hydroxylated aliphatic carboxylic acid containing from 2 to 40 carbon atoms, preferably from 10 to 34 carbon atoms and better still from 12 to 28 carbon atoms, and from 1 to 20 hydroxyl groups, preferably from 1 to 10 hydroxyl groups and better still from 1 to 6 hydroxyl groups. The aliphatic hydroxycarboxylic acid ester is chosen from:

a) partial or total esters of saturated linear mono-hydroxylated aliphatic monocarboxylic acids;

b) partial or total esters of unsaturated monohydroxylated aliphatic monocarboxylic acids;

c) partial or total esters of saturated monohydroxylated aliphatic polycarboxylic acids;

d) partial or total esters of saturated polyhydroxylated aliphatic polycarboxylic acids;

e) partial or total esters of C2 to C16 aliphatic polyols that have reacted with a monohydroxylated or polyhydroxylated aliphatic monocarboxylic or polycarboxylic acid,

- and mixtures thereof,

- esters of a diol dimer and of a diacid dimer, where appropriate esterified on their free alcohol or acid functional group(s) with acid or alcohol radicals, especially dimer dilinoleate esters; such esters may be chosen especially from the esters having the following INCI nomenclature: Bis-Behenyl/Isostearyl/Phytosteryl Dimer Dilinoleyl Dimer Dilinoleate (Plandool G), Phytosteryl/Isostearyl/Cetyl/Stearyl/Behenyl Dimer Dilinoleate (Plandool H or Plandool S), and mixtures thereof,

- mango butter, such as the product sold under the reference Lipex 203 by the company AarhusKarlshamn,

- hydrogenated soybean oil, hydrogenated coconut oil, hydrogenated rape seed oil, mixtures of hydrogenated plant oils such as the mixture of hydrogenated soybean, coconut, palm and rape seed plant oil, for example the mixture sold under the reference Akogel® by the company Aarhuskarlshamn (INCI name: Hydrogenated Vegetable Oil),

- shea butter, in particular the product whose INCI name is Butyrospermum parkii Butter, such as the product sold under the reference Sheasoft® by the company Aarhuskarlshamn,

- and mixtures thereof.

Among the pasty compounds, bis-behenyl/iso-stearyl/phytosteryl dimer dilinoleyl, bis(diglyceryl) poly(2-acyladipate), hydrogenated castor oil dimer dilinoleate, for example Risocast DA-L sold by Kokyu Alcohol Kogyo, and hydrogenated castor oil isostearate, for example Salacos HCIS (V-L) sold by Nisshin Oil, polyvinyl laurate, mango butter, shea butter, hydrogenated soybean oil, hydrogenated coconut oil, hydrogenated rape seed oil and vinylpyrrolidone/eicosene copolymers, or a mixture thereof, will preferably be chosen.

Waxes

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

As illustrations of waxes that are suitable for use in the core composition, mention may be made especially of hydrocarbon-based waxes, for instance beeswax, lanolin wax and Chinese insect waxes, rice bran wax, carnauba wax, candelilla wax, ouricury wax, alfalfa wax, berry wax, shellac wax, Japan wax and sumach wax; montan wax, orange wax and lemon wax, microcrystalline waxes (such as the wax sold under the reference Microwax HW by the company Paramelt), paraffins and ozokerite; polyethylene waxes such as those sold under the name Performalene 500-L and Performalene 400 by the company New Phase Technologies, and the waxes obtained by Fisher-Tropsch synthesis.

Mention may also be made of waxes obtained by catalytic hydrogenation of animal or plant oils containing linear or branched C8-C32 fatty chains. Among these waxes that may especially be mentioned are isomerized jojoba oil such as the trans-isomerized partially hydrogenated jojoba oil manufactured or sold by the company Desert Whale under the commercial reference Iso-Jojoba-50®, hydrogenated sunflower oil, hydrogenated castor oil, hydrogenated coconut oil, hydrogenated lanolin oil and bis(l,l,l-trimethylolpropane) tetrastearate sold under the name Hest 2T-4S® by the company Heterene.

Mention may also be made of silicone waxes (C30-45 alkyl dimethicone) and fluoro waxes.

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, may also be used. Such waxes are described in patent application FR-A-2 792 190.

A wax that may be used is a C20-C40 alkyl (hydroxystearyloxy)stearate (the alkyl group containing from 20 to 40 carbon atoms), alone or as a mixture.
Such a wax is especially sold under the names Kester Wax K 82 P®, Hydroxypoly ester K 82 P®, Kester Wax K 80 P® and Kester Wax K 82 H® by the company Koster Keunen.

Filler

Advantageously, the core composition comprises at least one filler, especially in a 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 core composition.

Structuring/thickening agent

The core composition may comprise, besides the waxes that may be present, at least one structuring agent chosen from lipophilic gelling agents, and mixtures thereof.

Lipophilic gelling agents

According to one embodiment, the core composition 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.

Advantageously, the core comprises the same gelling system as the shell.

According to a first variant, the core comprises at least one compound chosen from pasty fatty substances, waxes and fillers, and mixtures thereof.

According to a second variant, the core comprises the same gelling system as the shell and at least one pasty fatty substance.

Preferably, the core comprises at least 0.01% by weight and better still 0.1% by weight of dyestuff relative to the total weight of the composition, for example a content ranging from 0.01% to 10% by weight and more preferentially from 0.1% to 5% by weight.

According to one particular mode, the second composition, i.e. the core composition, comprises a combination of at least one low molecular weight dialkyl N-acylglutamide bearing a linear alkyl chain, chosen especially from (C_2-C_6)dialkyl N-acylglutamides in which the acyl group comprises a linear C_8 to C_{22} alkyl chain such as lauroylglutamic acid dibutylamide (or dibutyl lauroyl glutamide), with at least one low molecular weight dialkyl N-acylglutamide bearing a branched alkyl chain, chosen especially from (C_2-Ce)dialkyl N-acylglutamides in which the acyl group comprises a branched C_8 to C_{22} alkyl chain such as N-2-ethylhexanoyl glutamic acid dibutylamide (or dibutyl ethylhexanoyl glutamide) and preferably with a solvent that is capable of forming hydrogen bonds with these two low molecular weight lipophilic gelling agents, and it comprises at least 0.01% of at least one dyestuff.

The present invention is also directed toward a process for caring for and/or making up skin and/or the lips, in which said product is applied to the skin and/or the lips, and also to the use of said product for caring for and/or making up the skin and/or the lips and in particular for moisturizing the skin and/or the lips, especially as a lipstick.

The examples that follow are given as nonlimiting illustrations of the present invention. The percentages are weight percentages.

Examples

The composition was obtained according to the following process.

The constituents of phase A (fatty phase and polyamide resin) were mixed together at a temperature of between 95 and 115°C in a beaker, until a homogeneous mixture was obtained.

The constituents of phase B (gelling agents and fatty substances) were mixed together at a temperature of between 115 and 125°C in another beaker, until a transparent, homogeneous mixture was obtained.

Phase B was introduced into the fatty phase A with magnetic stirring or Rayneri blending.

The compositions obtained were then poured into a mold and left to cool in order to obtain sticks 12.7 mm in diameter.

The percentages are expressed by weight of active material.

Example 1: transparent stick

Phase	Name	%
A	Ethylenediamine/stearyl dimer dilinoleate copolymer (Uniclear 100VG)	17.00
A	Isoeicosane	18.75
A	Tridecyl trimellitate	23.00
A	Isononyl isononanoate	26.06
B	Isostearyl alcohol	11.35
B	Dibutyl ethylhexanoyl glutamide (EB 21)	1.27
B	Dibutyl lauroyl glutamide (GP 1)	2.57
		100

The stick obtained has a shear of 99.5 GF.

The colorless and transparent visual effect is obtained.

The composition obtained is in the form of a stable stick, which does not break on application. The application is comfortable (the product is glidant on application and deposits easily on the lips). The deposit obtained is homogeneous, comfortable and has a satisfactory thickness and gloss.

Example 2: core-shell stick with a transparent shell and a white core

The stick was prepared using the composition below as core composition and the composition of Example 1 as shell composition:

Name	%
Butyrospermum parkii (shea) butter	3.80
Dibutyl ethylhexanoyl glutamide.	1.27
Isopropyl myristate	12.47
Titanium dioxide	0.1
Isostearyl alcohol	11.35
VP/hexadecene copolymer	3.17
Dibutyl lauroyl glutamide	2.57
Pentaerythrityl tetrakis(di-t-butyl)hydroxyhydrocinnamate	0.17
Diisostearyl malate	3.81
Citric acid	qs
Petrolatum	10.17
Polybutene	34.10
Ethylenediamine/stearyl dimer dilinoleate copolymer	17

The composition obtained is in the form of a stable stick, which does not break on application. The application is comfortable (the product is glidant on application and deposits easily on the lips). The deposit obtained is uniform, comfortable and has satisfactory gloss. The texture is creamy.

CLAIMS

1. A transparent, anhydrous and solid composition comprising:

- at least one polyamide resin,

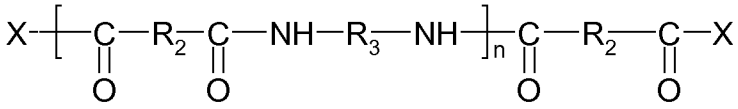
- at least one gelling system comprising a combination of at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a linear alkyl chain, chosen especially from (C_2-Ce)dialkyl N-acylglutamides in which the acyl group comprises a linear C_8 to C_{22} alkyl chain, with at least one lipophilic gelling agent chosen from low molecular weight dialkyl N-acylglutamides bearing a branched alkyl chain, chosen especially from (C_2-C_6)dialkyl N-acylglutamides in which the acyl group comprises a branched C_8 to C_{22} alkyl chain, and preferably with a solvent that is capable of forming hydrogen bonds with these two low molecular weight lipophilic gelling agents, and

- at least one polar nonvolatile oil,

- at least one apolar nonvolatile oil in an amount of less than 35% by weight relative to the total weight of the composition.

2. The composition according to claim 1, in which the polyamide resin is chosen from hydrocarbon-based polyamides and silicone polyamides.

3. The composition according to claim 1 or 2, in which the polyamide is a polyamide of formula (I)



(I)

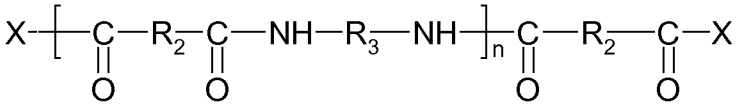
in which X represents a group -**N(Ri)$_2$** or a group -**ORi** in which **Ri** is a linear or branched C_8 to C_{22} alkyl radical which may be identical or different, **R_2** is a C_{28}-C_{42} diacid dimer residue, **R3** is an ethylenediamine radical and n is between 2 and 5.

4. The composition according to any one of the preceding claims, in which the dialkyl N-acylglutamide bearing a linear alkyl chain is lauroylglutamic acid dibutylamide, and the dialkyl N-acylglutamide bearing a branched alkyl chain is N-2-ethylhexanoylglutamic acid dibutylamide.

5. The composition according to any one of the preceding claims, in which the weight ratio of the lipophilic gelling agent chosen from the dialkyl N-acylglutamides bearing a linear alkyl chain/lipophilic gelling agent chosen from dialkyl N-acylglutamides bearing a branched alkyl chain is between 1.7 and 5.

6. The composition according to any one of the preceding claims, comprising at least one:

(i) polyamide of formula (lb)



(Ib)

in which X represents a group **-ORi** in which **Ri** is a linear or branched C_8 to C_{22} and preferably C_{16} to C_{22} alkyl radical which may be identical or different, $\mathbf{R_2}$ is a C_{28}-C_{42} diacid dimer residue, $\mathbf{R_3}$ is an ethylenediamine radical and n is between **2** and **5,** and

(ii) a combination

- of a (C_2-C_6)dialkyl N-acylglutamide in which the acyl group comprises a linear C_8 to C_{22} alkyl chain, preferably N-lauroylglutamic acid dibutylamide, and

- of a (C_2-C_6)dialkyl N-acylglutamide in which the acyl group comprises a branched C_8 to C_{22} alkyl chain, preferably N-**2**-ethylhexanoylglutamic acid dibutylamide.

7. The composition according to the preceding claim, comprising an ester-terminated polyamide, preferably the compound whose INCI name is Ethylenediamine/stearyl dimer dilinoleate copolymer, and a combination of N-lauroylglutamic acid dibutylamide and of N-**2**-ethylhexanoylglutamic acid dibutylamide.

8. The composition according to any one of the preceding claims, comprising less than **22%** and preferably less than **20%** by weight of apolar nonvolatile oil(s) relative to the total weight of the composition.

9. The composition according to any one of the preceding claims, comprising at least **5%,** preferably at least **7%** and more preferably at least **10%** by weight of apolar nonvolatile oil(s) relative to the total weight of the composition.

10. The composition according to any one of the preceding claims, in which the apolar nonvolatile oil is chosen from linear or branched hydrocarbons, of mineral or synthetic origin, such as chosen from liquid paraffin or derivatives thereof, squalane, isoeicosane, liquid petroleum jelly, naphthalene oil, polybutylenes, polyisobutylenes, decene/butene copolymers, polybutene/polyisobutene copolymers, polydecenes and hydrogenated polydecenes, and mixtures thereof, and preferably isoeicosane.

11. The composition according to any one of claims **1** to 8, characterized in that it is free of hydrogenated polydecenes.

12. The composition according to any one of the preceding claims, in which the polar nonvolatile oil is chosen from isononyl isononanoate, isotridecyl isononanoate, tridecyl trimellitate, diisostearyl malate, octyldodecanol and isostearyl alcohol.

13. The composition according to any one of claims 1 to 10, characterized in that the polar nonvolatile oil is a hydrocarbon-based oil chosen from alcohol oils and in that the fatty phase/gelling system weight ratio is less than 60 and preferably less than 50.

14. The composition according to any one of the preceding claims, in which the polar nonvolatile oil is isostearyl alcohol.

15. The composition according to any one of the preceding claims, characterized in that it contains at least 60% by weight, preferably at least 70% by weight, preferably at least 80% by weight, more preferably at least 90%> by weight and advantageously at least 95%o by weight of oil(s) relative to the total weight of said composition.

16. A core-shell product comprising a first composition according to any one of the preceding claims forming the shell and a second composition, which is different from the first composition, forming the core.

17. The product according to the preceding claim, in which the second composition comprises:

- a combination of at least one low molecular weight dialkyl N-acylglutamide bearing a linear alkyl chain, chosen especially from (C_2-C_6)dialkyl N-acylglutamides in which the acyl group comprises a linear C_8 to C_{22} alkyl chain such as lauroylglutamic acid dibutylamide, with at least one low molecular weight dialkyl N-acylglutamide bearing a branched alkyl chain, chosen especially from (C_2-C_6)dialkyl N-acylglutamides in which the acyl group comprises a branched C_8 to C_{22} alkyl chain such as N-2-ethylhexanoyl glutamic acid dibutylamide and preferably with a solvent that is capable of forming hydrogen bonds with these two low molecular weight lipophilic gelling agents, and
- at least 0.01% of at least one dyestuff

18. A process for caring for and/or making up the skin and/or the lips, in which the composition according to any one of claims 1 to 15 or the product according to either of claims 16 and 17 is applied to the skin and/or the lips.

19. The use of the composition according to any one of claims 1 to 15 or of the product according to either of claims 16 and 17 for caring for and/or making up the skin and/or the lips, and more particularly as a lipstick.