STABILIZED WHITENING COMPOSITIONS AND METHOD OF PREPARING SAME

Field of the Invention

The present invention relates to useful pharmaceutical and cosmetic compositions capable of causing a whitening affect on the skin. In particular, the invention relates to a stabilized composition of hydroxyacid and a whitening agent together in solution capable of maintaining the independent pH values of its contents as well as other properties of the whitening agent and hydroxyacid.

Background of the Invention

In recent times, cosmetics have developed beyond the mere concept of ornamentation for the face. Consumers now demand more from their makeup than simple color, coverage or moisturizing. For example, the ability to "whiten" the skin is a desirable function for some consumers. This may be to remove freckles or other dark blemishes on the skin or it may be a cultural preference. The color of the skin is determined by melanin which is a biopolymer pigment manufactured by special dendritic cells known as melanocytes. Melanocytes are located primarily below or between basal cells of the epidermis or upper layer of the skin. The basal layer is one of two main layers of the epidermis. The viable basal layer is at the bottom of the epidermis in contact with the dermis. And, the second layer is the dead corneal or horny layer located above the basal layer which extends upward to the surface of the skin.

Characterized as unicellular "glands," melanocytes have long, thin, branching, streamer-like dendrites or arms that reach between the epidermal cells in their immediate vicinity. An arrangement of epidermal cells is thereby created around each melanocyte. The activity of melanocytes determines the production of melanin and therefore, the color or rather the light or dark complexion of the skin.

Melanin production is stimulated by both internal and external factors. Melanin once produced, travels from the melanosome region to the dendrites of the melanocyte. Epidermal cells in contact with the melanin-laden dendrites phagocytose the tips of the dendrites and transfer melanin to the surrounding epidermal cells. Melanin granules move above the cell nucleus inside the epidermal cells. Because melanin orients itself in this manner, it is believed that melanin functions to protect cells from damaging ultraviolet ("UV") rays. Production of melanin is stimulated by the external factor of UV radiation.

Internally, biochemical stimulation of melanin is achieved by the enzyme tyrosinase. Tyrosinase causes oxidation of substrates tyrosine and levodopa to dopaquinone followed by subsequent polymerization of numerous intermediates into melanin. The mechanism of melanin biosynthesis is a complex process and it is well known that tyrosinase is an important driving force in the process. See M.M. Wick, V.J. Hearing and H. Rorsman, *Biochemistry of Melanization*, pp. 251-256 (1993). External factors such as UV radiation mentioned above also play a role in the synthesis of melanin by stimulating melanocytes to produce melanin. However, there is current research indicating that tyrosinase activity is inhibited by UV radiation and allows rapid stimulation of pigment production.

A number of prior art methods and compositions have been developed which attempt to cause a depigmentation effect on the skin. Many of the compositions useful for inducing a depigmentation effect on the human skin known in the prior art focus on bleaching the skin with sodium hypochlorite, hydroquinone, monoethyl ether, ammoniated mercury, zinc peroxide, mercurous chloride or bi-chloride of mercury. These compounds, however, are disadvantageous because they sensitize the skin, irritate the skin and do not provide predictable results. Therefore, an effective treatment is still desired that will inhibit either the production of the enzyme tyrosinase or the production of the intermediates during melanogenesis.

Compounds which inhibit synthesis of melanin include a serotonin uptake antagonist and a histamine agonist. The serotonin uptake antagonist, 6-nitroquipazine, inhibits melanin activity without affecting tyrosinase activity. And, the histamine agonists decrease and eventually halt melanin production by affecting tyrosinase activity. In addition to these two compounds, ascorbic acid and its derivatives are known to be useful in decomposing melanin in the epidermis. Ascorbic acid has been widely employed in skin whitening products. However, there are many challenges to formulating ascorbic acid due to the fact that in typical formulations, it can be quite unstable and readily degrades. Ascorbic acid is an alpha keto lactone and is sensitive to light, oxygen and water due its low pH value. Because the pH of the skin is about 5.5, use of ascorbic acid on the skin can also be irritating. However, to formulate ascorbic acid at a higher pH would cause it to degrade and fail to provide the desired whitening activity.

Another challenge in formulating ascorbic acid is its instability when combined with other actives or ingredients in a composition. The very reason for using various actives and ingredients in the formulation, i.e., their biological activity, can be subject to reduction or loss of potency if they are not combined in the proper vehicle. Consequently, a number of routinely encountered factors can

inactivate ascorbic acid in a formulation before it ever reaches the consumer. It is difficult to avoid the effects of oxygen and UV light, as they are ubiquitous in nature. Thus, there continues to be a need for an acceptable vehicle capable of stably containing ascorbic acid and its derivatives in combination with other actives and ingredients, while protecting them from loss of their desired properties.

Developing pharmaceutical and cosmetic compositions for the effect of whitening can present a serious problem to the formulator because substances have varying properties. In particular, substances having varying pH values when combined can neutralize each other such that the desired effect of the individual substances cannot be obtained. The individual substances lose their desired properties or can no longer provide the properties they were intended to have when added to the solution. To combat this problem, such compositions contain substances of similar pH values. Typically, when formulating ascorbic acid, the pH of the solution must be below a pH value of about 3.5. However, as mentioned above, the acidity of the solution does not render the solution suitable for use as a cosmetic or pharmaceutical because it can irritate the skin.

Another method to overcome the problem of low pH is the use of a metal salt of a phosphorylated ascorbic acid. Particularly, magnesium ascorbyl phosphate ("MAP") which is only stable at a pH value of about 8 or 9 is used as a whitening agent. However, the pH of a solution containing MAP is basic and when used on the skin is also irritating to the skin. Further, it is difficult to formulate a composition that contains MAP and other ingredients having a low pH value. Because of the need for a higher pH value, MAP cannot easily be combined with other useful actives which may have a lower pH value.

Additional difficulties arise with the formulation of ascorbic acid for efficient application to the skin. It is believed that ascorbic acid causes melanin to decompose in the epidermis rendering a "whitening" affect on the skin. Standard formulations are usually creams or lotions from which ascorbic acid must diffuse from the base formula to the skin to "whiten" the skin.

Although ascorbic acid and its derivatives have been shown to be an effective skin whitener, their stability in combination with other actives and ingredients in solution is a need that remains to be addressed. Further, a vehicle is needed to enhance the delivery of ascorbic acid from the base formula to the skin. Therefore, in order to fully exploit its useful properties as a whitener, a means is sought by which ascorbic acid and its derivatives can be stabilized in a desired composition with other actives and ingredients, while retaining their independent useful properties, and by which ascorbic acid can be readily delivered from the formula to the skin. The present invention provides

such a means, and is substantially non-irritating to the skin. The demand for whiteners that are cosmetically appealing continues to grow and therefore, there is a need for a stable whitening composition that satisfies consumer needs.

SUMMARY OF THE INVENTION

The present invention provides stable cosmetic and pharmaceutical compositions comprising at least one hydroxyacid encapsulated in a lamellar vesicle and a whitening agent in a cosmetically or pharmaceutically acceptable carrier. Preferably the whitening agent is optimally stable at non-acidic pH levels. The encapsulated hydroxyacid provides for adequate stability of the whitening composition by allowing the hydroxyacid and the whitening agent to coexist in solution together. Therefore, the properties of the acid and the whitening agent do not degrade while they are in solution together.

The composition of the present invention can also contain two hydroxyacids. Each of the hydroxyacids are encapsulated within a lamellar vesicle. The individual vesicles containing individual hydroxyacids are combined in solution with a metal salt of a phosphoric acid ester of ascorbic acid. The metal salt can be formed by a univalent, divalent, or trivalent metal.

The invention also provides a method for preparing a stable cosmetic or pharmaceutical composition for causing a whitening affect on the skin, comprising encapsulating at least one hydroxyacid and adding the encapsulated hydroxyacid to a solution containing an effective amount of a whitening agent. Further, the invention relates to a method of whitening the skin which comprises applying to the skin an effective amount of the subject whitening composition.

DETAILED DESCRIPTION OF THE INVENTION

The addition of hydroxyacids to whitening compositions is frequently desirable because of their properties. In addition to being an excellent exfoliating agent, hydroxyacids can assist in bringing about a whitening affect, thereby enhancing the efficacy of the composition as a whole by complementing the action of the main whitening active. In the present invention, hydroxyacid is encapsulated in a lamellar vesicle to provide a means for adding an acid component to the whitening composition containing whitening agents that otherwise may degrade the properties of the acid, the whitening agent, or both. By encapsulating the hydroxyacid in the vesicle, the acid and the whitening

agent can exist in solution together without affecting their desired properties. Therefore, the solution can contain numerous actives and other ingredients having various properties that exist independently in the solution. As a result, the composition is multifunctional in its effect when applied to the skin.

A preferred composition of the present invention is a cosmetic or pharmaceutical composition, in which the total amount of hydroxyacid is preferably from about 0.01 to about 5 percent, more preferably from about 0.02 to about 1.0 percent. The term "hydroxyacid" for purposes of the present invention includes both alpha-hydroxyacids and beta-hydroxyacids in their free acid form, as well as covalent derivatives thereof. Suitable hydroxyacids include, but are not limited to, alpha-hydroxyacids such as lactic acid, glycolic acid, citric acid, alpha-hydroxyoctanoic acid, alpha-hydroxydecanoic acid, alpha-hydroxylauric acid, tartaric acid, glucouronic acid, galactouronic acid, alpha-hydroxybutyric acid, alpha-hydroxyisobutyric acid, malic acid, mandelic acid, pyruvic acid, and tartronic acid, preferably alpha-hydroxydecanoic and alpha-hydroxyoctanoic acids; and beta-hydroxyacids such as salicylic acid. Suitable covalent derivatives include esters, amides and lactones, and mixtures thereof.

The lamellar vesicles containing hydroxyacids in the amount stated above may be present in the composition in an amount of about 0.04 to about 20 percent by weight. In a preferred composition, the total amount of encapsulated hydroxyacid is preferably from about 2 to about 10 percent by weight.

The use of lamellar vesicles to encapsulate and deliver both cosmetic and pharmaceutical actives has long been established. These vesicles contain multiple lipid layers, each of which surround a small aqueous volume separating the layer. Vesicles of this kind and methods of making the same have been described in, for example, U.S. Patent No. 5,585,109. The contents are incorporated by reference in its entirety.

The lamellar vesicle encapsulating the hydroxyacids is a lipid vesicle having lipid components. The term "lipid vesicle" for purposes of the present invention refers to any spherical, self-closed structure composed of one or more lipid components arranged in the form of curved lipid bilayers which entrap part of the solvent in which they freely float. Lipid vesicles are also commonly referred to as "liposomes" and may consist of one or several concentric membranes. While the thickness of the membrane is about 4 nanometers, the size of the liposome can range from about 20

nanometers to several dozen micrometers. Liposomes are essentially microscopic spherical membrane enclosed vesicles or sacs that are non-toxic to living cells and capable of delivering their contents.

The contents of a liposome are contained by the bilayers of the liposome. Phospholipids are a common lipid source for the bilayers of the liposome. The liposomes of the present invention may be made from natural and synthetic phospholipids, glycolipids and other lipids and lipid congeners; cholesterol, cholesterol derivatives and other cholesterol congeners; charged species which impart a net charge to the membrane; reactive species which can react after liposome formation to link additional molecules to the liposome membrane; and other lipid soluble compounds which have chemical or biological activities. Examples of phospholipids include but are limited to natural sources such as egg yolk lecithin, soya lecithin, phosphatidylethanolamines, phosphatidylserines, cereamides, cerebrosides, and phosphatidylglycerides. The present invention also includes alternatives to natural phospholipids for example, synthetic phospholipids such as dipalmitoylphosphatidylcholine, synthetic amphiphiles such as polyglycerol derivatives, non-ionic materials such as polyoxyethylene ethers and esters, and cationic materials.

Liposomes are artificially made by a variety of methods. Most methods of making lipid vesicles are derived from the Bangham method, see Bangham et al., J. Mol. Biol., 13:238-252 (1965). A more detailed discussion on lipid vesicles is provided in the following reference, D.D. Lasc, "Liposomes, From Physics To Applications," (Elsevier, New York, 1993), incorporated herein by reference. The liposomes of the present invention may be of various size and may comprise either one or several membrane layers separating the internal and external compartments.

Whitening agents can include licorice extract, ascorbic acid (Vitamin C) or an isomer, homolog, analog or derivative thereof, salicylic acid, lactic acid, tyrosinase inhibitors (e.g. kojic acid), antioxidant free radical traps, compounds which inhibit cyclic AMP, histamine agonists, serotonin uptake inhibitors, pituitary-ovarian axis suppressors, Vitamin E.

Although the composition of the present invention can contain any whitening agent, a particular benefit is obtained when the whitening agent is one which is active at a non-acidic pH. Particularly preferred of this type are ascorbic acid derivatives. The derivatives of ascorbic acid which may be used are, for example, ascorbyl esters of fatty acids, such as ascorbyl palmitate, ascorbyl dipalmitate, ascorbyl dimethylsilanol palmitate, and ascorbyl stearate; univalent, divalent or trivalent metal or metal phosphate salts, such as magnesium, calcium, sodium, or potassium ascorbyl phosphate, or magnesium, calcium, sodium or potassium ascorbate. This component is typically

present in an amount of from about 0.1 to about 10 percent by weight, more preferably from 2 to about 4 percent. In a preferred embodiment of the present invention ascorbic acid is a univalent, divalent or trivalent metal salt of a phosphoric acid ester of ascorbic acid. In a most preferred embodiment, ascorbic acid is a derivative thereof in the form of a divalent metal salt of a phosphoric acid ester of ascorbic acid selected from the group consisting of magnesium or calcium. These can be used singly or in combinations of two or more.

In a particularly preferred embodiment, the whitening composition of the present invention is comprised of at least two hydroxyacids encapsulated in separate lamellar vesicles in combination with a metal salt of a phosphoric acid ester of ascorbic acid. Preferably, one of the two hydroxyacids is an alpha-hydroxyacid and the other is a beta-hydroxyacid. More preferably, the composition contains lactic acid and salicylic acid which enhance the properties of the composition. Specifically, lactic acid and salicylic acid enhance the ability of the composition to whiten the skin. Further, salicylic acid acts as a keratolytic agent increasing the rate of cell turnover and providing an exfoliating property to the composition.

The encapsulation of the hydroxyacids is an important feature of the present invention because it is the means by which hydroxyacids, which are acidic, stably exist in solution with the whitening agent which has a higher pH. Encapsulating the hydroxyacids also serves to keep them in the most effective layer of the skin. If more than one hydroxyacid is used, they may be added to the composition in a single liposome, or in separate individual liposomes, which may be of any type. However, in a preferred embodiment, if salicylic acid is employed, it is incorporated into a liposome specifically adapted for delivery of salicylic acid. The appropriate vesicle for encapsulating salicylic acid is one that is designed slightly different than a liposome containing lactic acid in order to accommodate some of the challenges of encapsulating salicylic acid. Accordingly, the liposome containing salicylic acid, also known as a Salisome™, includes a membrane forming a liposomal bilayer surrounding the salicylic acid, a polar, water-soluble organic base, and water.

Preparation of suitable Salisomes™, is described, for example, in U.S. Patent No. 5,585,109 the contents of which are incorporated herein by reference. To prepare the liposomes containing lactic acid, various methods can be used. There are numerous techniques for making liposomes containing lactic acid. In general, these techniques involve mixing the components that form the lipid bilayer of the liposome, as well as the component, in this case lactic acid, which is to be encapsulated within the liposome, under conditions that permit its formation. Further, the ingredients used to make the liposome can be processed in a microfluidizer to mass manufacture the liposomes in a stable lamellar

phase. Microfluidization permits the formation of liposomes that can maintain an ordered lipid bilayer during storage. The use of suitable microfluidizers for making lamellar vesicles is described in Mayhew et al., "Characterization of Liposomes Prepared Using a Microemulsifier." *Biochem. et Biophys. Acta.*, 775, pp. 169-74 (1984).

For topical application, the whitening compositions can also be formulated with a variety of cosmetically and/or pharmaceutically acceptable carriers. Accordingly, the compositions of the present invention will comprise a pharmaceutically or cosmetically acceptable carrier, in an amount appropriate to accommodate the other components of the formulation. The term "pharmaceutically and/or cosmetically acceptable carrier" refers to a vehicle, for either pharmaceutical or cosmetic use, which vehicle delivers the active components to the intended target and which will not cause harm to humans or other recipient organisms. As used herein, "pharmaceutical" or "cosmetic" will be understood to encompass both human and animal pharmaceuticals or cosmetics. The carrier may be in any form appropriate to the mode of delivery, for example, solutions, colloidal dispersions, emulsions, suspensions, creams, lotions, gels, foams, mousses and the like.

The whitening compositions can be prepared in any form convenient for topical application to the skin. Such forms include, but are not limited to gels, creams, dispersions, emulsions (water-in-oil or oil-in-water), suspensions, lotions, foams, mousses and the like. In a preferred embodiment, the carrier is a suspension, dispersion or emulsion. The emulsion may be an oil-in-water emulsion, or a water-in-oil emulsion. These emulsions contain one or more oil components, an aqueous component, and a specific emulsifier component chosen depending on the nature of the desired emulsion.

The oil component may be any pharmaceutically or cosmetically acceptable material which is substantially insoluble in water. These materials can be found for example in the CTFA International Dictionary of Cosmetic Ingredients as well as the U.S. Pharmacopoeia or other equivalent sources. Suitable oil components include, but are not limited to, natural oils, such as coconut oil; hydrocarbons, such as mineral oil and hydrogenated polyisobutene; fatty alcohols, such as octyldodecanol; esters, such as C12-15 alkyl benzoate; diesters, such as propylene glycol dipelargonate; triesters, such as glyceryl trioctanoate; sterol derivatives, such as lanolin; animal waxes, such as beeswax; plant waxes, such as carnauba; mineral waxes, such as ozokerite; petroleum waxes, such as paraffin wax; synthetic waxes, such as polyethylene; and mixtures thereof. Suitable oil components may also be silicones including, but not limited to, volatile silicones such as cyclomethicone; polymeric silicones such as dimethicone; alkylated derivatives of polymeric silicones, such as cetyl dimethicone and lauryl trimethicone; hydroxylated derivatives of polymeric silicones,

such as dimethiconol; and mixtures thereof. The aqueous component refers to any pharmaceutically or cosmetically acceptable material consisting essentially or predominantly of water.

For preparation of an oil-in water emulsion, the oil-in-water emulsifier will be an emulsifier having a hydrophilic-lipophilic balance (HLB) of at least 8, or a mixture of such emulsifiers with one or more water-in-oil emulsifiers (i.e., emulsifiers having an HLB of from about 2 to about 6), in which case the type and amount of each emulsifier present in the mixture is selected such that the effective HLB of the resultant oil-in-water emulsifier component is at least about 6. Techniques for combining and ascertaining the effective HLB of a mixture of emulsifiers are known; see L.M.Prince, in M.G. DeNavarre, "The Chemistry and Manufacture of Cosmetics", Volume III, Second Ed., (Continental Press, Orlando, 1975), pp. 25-37.

Suitable oil-in-water emulsifiers include, but are not limited to, sorbitol derivatives, such as sorbitan monolaurate and polysorbate 20; ethoxylated alcohols such as laureth-23, ethoxylated fatty acids such as PEG-1000 stearate; amidoamine derivatives such as stearamidoethyl diethylamine; sulfate esters such as sodium lauryl sulfate; phosphate esters such as DEA cetyl phosphate; fatty acid amine salts such as TEA stearate; and mixtures thereof.

The emulsion may also be a water-in-oil emulsion. For this purpose, a water-in-oil emulsifier refers to any cosmetically acceptable emulsifier having an HLB of no greater than 6, preferably from about 2 to about 4. Suitable water-in-oil emulsifiers include, but are not limited to, sorbitan derivatives such as sorbitan laurate and sorbitan palmitate; alkoxylated alcohols such as laureth-4; hydroxylated derivatives of polymeric silicones, such as dimethicone copolyol; alkylated derivatives of hydroxylated polymeric silicones, such as cetyl dimethicone copolyol; glyceryl esters such as polyglyceryl-4 isostearate; beeswax derivatives such as sodium isostearoyl-2 lactylate; lecithin; and mixtures thereof.

Because of the skin enhancing effects of the whitening compositions of the present invention, they may also have incorporated active agents which are used for skin treatment, or which are routinely applied topically. Examples of such active agents which may form part of the composition include, but are not limited to, those that improve or eradicate age spots, keratoses and wrinkles, analgesics, anesthetics, anti-acne agents, antibacterials, antiyeast agents, antifungal agents, antiviral agents, antidandruff agents, antidermatitis agents, antipruritic agents, antiemetics, antimotion sickness agents, anti-inflammatory agents, antihyperkeratolytic agents, anti-dry skin agents, antiperspirants, antipsoriatic agents, antiseborrheic agents, hair conditioners and hair treatment agents, antiaging

agents, antiwrinkle agents, antiasthmatic agents and bronchodilators, sunscreen agents, antihistamine agents, wound-healing agents, vitamins, corticosteroids, or hormones. More specific examples of useful active agents include retinoids, topical cardiovascular agents, clotrimazole, ketoconazole, miconozole, griseofulvin, hydroxyzine, diphenhydramine, pramoxine, lidocaine, procaine, mepivacaine, monobenzone, erythromycin, tetracycline, clindamycin, meclocyline, hydroquinone, minocycline, naproxen, ibuprofen, theophylline, cromolyn, albuterol, retinoic acid, 13-cis retinoic acid, hydrocortisone, hydrocortisone 21-acetate, hydrocortisone 17-valerate, hydrocortisone 17-butyrate, betamethasone valerate, betamethasone diproprionate, triamcinolone acetonide, fluocinonide, clobetasol, proprionate, benzoyl peroxide, crotamiton, propranolol, promethazine, vitamin A palmitate, vitamin E acetate and mixtures thereof. The amount of active agent to be used in any given formulation is readily determined in accordance with its usual dosage.

In addition to those components specifically noted above, the compositions may also comprise additional preservatives, fragrances, emollients, antiseptics, antiinflammatories, antibacterials, stabilizers, antioxidants, vitamins, pigments, dyes, humectants, and propellants, as well as other classes of materials the presence of which in the compositions may be cosmetically, medicinally, or otherwise desired. Such components can be found in the CTFA International Cosmetics Ingredients Dictionary, *supra*. Preservatives employed, may be in an amount of from 0.01-2%, preferably from 0.01-1%, of the formula weight. Examples of suitable preservatives are BHA, BHT, propyl paraben, butyl paraben or methyl paraben or an isomer, homolog, analog or derivative thereof.

The whitening compositions of the present invention can be topically applied for spot treatment. For example, the composition can be applied to areas of uneven skin tones, dark spots or freckles when they appear or on a continuing as needed basis. However, a preferred method of obtaining the benefits of the whitening composition is via chronic topical application of a safe and effective amount of the whitening composition of the present invention. It is suggested as an example, that topical application range from about every other day to about 1 to 3 times daily, preferably from about once daily to about 2 times daily, most preferably about once or twice per day. By "chronic" application, it is meant herein that the period of topical application may be over the lifetime of the user, preferably for a period of at least about one month, more preferably from about three months to about twenty years, more preferably from about six months to about ten years, more preferably still from about one year to about five years, thereby resulting in the achievement of a whitening effect on the skin. It will be recognized by those skilled in the art that the treatment regimen employed can vary depending upon the user's level of melanocyte activity producing melanin and enzymatic activity destroying melanin.

Further, while the compositions of the present invention are ideal for spot treatment they can be used on the entire face if needed or they can be used on other areas of the skin. The compositions of the present invention are applied to the skin by covering the area desired to be whitened and blending the composition into such area of the skin. The whitening compositions are preferably used after a cleansing regimen. The cleansing regimen may consist of cleansing the skin with a soap or other form of cleanser, removing soap residue with a toner or clarifying lotion, and applying a moisturizing cream or lotion to the skin. Following these three general cleansing steps, the whitening compositions are applied to the desired areas of the skin to be whitened such as areas of the skin where the tone of the skin is uneven or other types of spots that may be found on the skin.

The present invention is further illustrated by the following non-limiting examples.

EXAMPLE I

Liposomes and Salisomes™ (salicylic acid-containing liposomes) containing lactic acid and salicylic acid respectively are provided by Collaborative Laboratories, East Setauket, NY. The liposomes, Salisomes™, and the whitening composition are prepared as follows:

LIPOSOMES

Ingredient	**Percent**
PHASE 1	
Water	60%
Lecithin	3%
PHASE 2	
Lactic Acid	15%
Phenonip	1%
PHASE 3	
Arginine	21%

The ingredients in Phase 1 are mixed using vigorous stirring. The ingredients of Phase 2 are added, and mixed together with Phase 1 ingredients. Next, the batch is microfluidized using a microfluidizer. After microfluidization, arginine is added.

SALISOMES™

Ingredient	Percent
Water	74%
Arginine	13%
Salicylic Acid	10%
Tocopheryl acetate	1%
Phenonip	1%
Soy phospholipids	1%

The composition of the present invention which follows is obtained according to the procedure below. The following steps are performed successively at room temperature (20° C):

1. The constituents of PHASE I (hereinafter referred to as "the oil phase") are mixed together, followed by addition of the PHASE II constituent by sprinkling while mixing with a mixer.

2. Licorice is dissolved in butylene glycol and added to the oil phase.

3. Separately, the constituents of PHASE IV are mixed until they dissolved and when clear, liposome and Salisome™ are added and mixed until uniform; afterward, this mixture is slowly added to the oil phase while paddle mixing.

A pH test determines that the pH of the composition does not drift indicating that the liposome and the Salisome™ are stable. A lack of crystallization substantiates further that the magnesium ascorbyl phosphate is stable in the composition due to the stability of the lactic acid in the liposome and the salicylic acid in the Salisome™.

WHITENING COMPOSITION

Ingredient	Percent
PHASE I	

Cetyl dimethicone copolyol	2%
Dioctyl sebacate	5.5%
Isohexadecane	7%
Dimethicone	6%
Polyglyceryl-3 diisostearate	0.35%
PHASE II	
Quaternium-18 Hectorite	1%
PHASE III	
Licorice extract	0.06%
Butylene glycol	4%
PHASE IV	
Deionized water	59.088%
Magnesium ascorbyl phosphate	3%
Parabens	1%
Sodium citrate	2%
Citric acid	0.002%
PHASE V	
Liposome	6%
Salisome™	3%
_____	100%

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What we claim is:

1. A stable cosmetic or pharmaceutical composition comprising at least one hydroxyacid encapsulated in a lamellar vesicle, in combination with an effective amount of a whitening agent in a cosmetically or pharmaceutically acceptable carrier.

2. The composition of claim 1 wherein said whitening agent has optimum activity at a non-acidic pH level.

3. The composition of claim 1 wherein said whitening agent is ascorbic acid or a derivative thereof selected from the group consisting of univalent, divalent or trivalent metal salts of a phosphoric acid ester of ascorbic acid.

4. The composition of claim 1 wherein said hydroxyacid is in an amount of about 0.01 to about 5 percent by weight.

5. The composition of claim 1 containing at least two hydroxyacids.

6. The composition of claim 5 wherein at least one of said hydroxyacids is an alpha hydroxyacid.

7. The composition of claim 6 wherein said hydroxyacid is lactic acid.

8. The composition of claim 5 wherein at least one of said hydroxyacids is a beta hydroxyacid.

9. The composition of claim 8 wherein said hydroxyacid is salicylic acid.

10. The composition of claim 5 wherein said hydroxyacids are at least one alpha hydroxyacid and at least one beta hydroxyacid.

11. The composition of claim 10 wherein each of said alpha hydroxyacid and said beta hydroxyacid is encapsulated in a separate lamellar vesicle.

12. The composition of claim 5 wherein said hydroxyacids are lactic acid and salicylic acid.

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13. The composition of claim 12 wherein each of said lactic acid and said salicylic acid is encapsulated in a separate lamellar vesicle.

14. The composition of claim 1 which is in the form of a solution, colloidal dispersion, emulsion, suspension, cream, lotion, gel, foam, or mousse.

15. The composition of claim 14 which is a dispersion.

16. The composition of claim 14 which is an emulsion.

17. The composition of claim 16 which is a water-in-oil emulsion.

18. The composition of claim 16 which is an oil-in-water emulsion.

19. A stable cosmetic or pharmaceutical composition comprising two hydroxyacids, each of said hydroxyacids encapsulated in a separate lamellar vesicle, in combination with a univalent, divalent or trivalent metal salt of a phosphoric acid ester of ascorbic acid.

20. The composition of claim 19 wherein said hydroxyacids are lactic acid and salicylic acid.

21. The composition of claim 20 wherein said ester is magnesium ascorbyl phosphate.

22. A method of whitening human skin which comprises applying to the skin an effective amount of a cosmetic or pharmaceutical composition comprising two hydroxyacids, each of said hydroxyacids encapsulated in a lamellar vesicle, in combination with a univalent, divalent or trivalent metal salt of a phosphoric acid ester of ascorbic acid.

23. A method for preparing a stable cosmetic or pharmaceutical composition for whitening human skin comprising the steps of encapsulating at least one hydroxyacid in a lamellar vesicle, and combining the encapsulated hydroxyacid with a whitening agent.

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