PACKAGING FOR VIEWING VISUALLY DISTINCT PHASES OF COMPOSITION

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A personal care product includes a container and a personal care composition having visually distinct phases disposed in the container. The container includes a viewing portion that allows for viewing of the visually distinct phases within the container and a covering portion that inhibits viewing of the composition within the container.
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CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional application Ser. No. 60/732,422, filed on Nov. 1, 2005.

TECHNICAL FIELD

[0002] The present application relates generally to containers and more particularly to a container that allows viewing of visually distinct phases of a composition.

BACKGROUND

[0003] Various personal care compositions have been developed that employ two or more phases packaged in a single container. The phases, although packaged in physical contact are, at least initially, separate and distinct. It is desirable to allow viewing of at least a portion of a composition having two or more phases, particularly in instances wherein the composition is visually pleasing.

[0004] Previously containers have been proposed to hold personal care compositions having two or more phases. The containers may be transparent, which can provide a consumer with the ability to view the composition therein. However, one drawback to these previous containers is that they require that the composition remain substantially stable in order to maintain the desired pleasing aesthetic appearance to the consumer. Therefore a need still exists in the art for a package suitable for containing a personal care composition comprising at least two visually distinct phases which communicates the multi phase nature of the product to the consumer but does not necessarily require long term stability.

[0005] Accordingly, it is an object of the present invention to provide a package for a personal care product having at least two visually distinct phases, wherein the consumer can visually perceive each phase. It is a further object of the invention to provide a package that also conceals a portion of the composition.

SUMMARY

[0006] In an aspect, the invention features a container for a personal care composition having at least two visually distinct phases wherein the visually distinct phases can be seen through a portion of the container. The container includes a viewing portion that allows for viewing of the visually distinct phases within the container and a covering portion that inhibits viewing of the composition within the container. The viewing portion is from about 0.5% to about 70% of the surface area of the package exclusive of any closure. More preferably the viewing portion is from about 0.5% to about 50% of the surface area of the package exclusive of any closure.

[0007] In certain embodiments, the viewing portion is completely bounded by the covering portion. The viewing and covering portions may be formed by a sleeve or wrap. The sleeve may be a shrink sleeve that extends about a periphery of the container. The container may have a transparent body. The personal care composition may be a multi-phase composition where phases of the composition form the visually distinct phases.

[0008] The details of one or more embodiments of the invention are set forth in the accompanying drawings and the description below. Other features, objects and advantages of the invention will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a front view of an embodiment of a container;

[0010] FIG. 2 is an exploded front view of the container of FIG. 1;

[0011] FIG. 3A illustrates a back of the container of FIG. 1;

[0012] FIG. 3B illustrates a side of the container of FIG. 1;

[0013] FIG. 3C illustrates a face of the container of FIG. 1;

[0014] FIG. 3D illustrates a side of the container of FIG. 1;

[0015] FIG. 4 shows an embodiment of a shrink sleeve removed from the container of FIG. 1;

[0016] FIG. 5 is a front view of another embodiment of a container;

[0017] FIG. 6 is a front view of another embodiment of a container;

[0018] FIG. 7 is a front view of another embodiment of a container;

[0019] FIG. 8 is a front view of yet another embodiment of a container; and

[0020] FIG. 9 is a front view of another embodiment of a container.

DETALIED DESCRIPTION

[0021] As used herein, “visually distinct” phases are regions that can be observed by a viewer as distinctly separate regions in contact with one another. Regions may be visually distinct from each other due to, for example, color differences, shape differences, size differences, or a combination of these.

[0022] As used herein, the term “transparent” refers generally to having the property of transmitting light without appreciable scattering so that visually distinct phases lying beyond are seen. Transparent packaging, or at least a portion thereof, has a percent transmittance of light in the visible wavelengths of between about 50% and about 100%.

[0023] A “visibly clear” composition refers to a composition having a transmission of about 60% or greater, such as about 80% or greater. The transmission of a composition is measured using Ultra-Violet/Visible (UV/Vis) Spectrophotometry, which determines the absorption or transmission of UV/Vis light by a sample. A light wavelength of 600 nm has been shown to be adequate for characterizing the degree of clarity of personal care compositions. Typically, the specific instructions associated with the specific spectrophotometer
should be followed. In general, the procedure for measuring percent transmittance starts by setting the spectrophotometer to the 600 nm. Then a calibration “blank” is run to calibrate the readout to 100 percent transmittance. The test sample is then placed in a cuvette designed to fit the specific spectrophotometer and the percent transmittance is measured by the spectrophotometer at 600 nm.

[0024] By the term “multi-phased” or “multi-phase” as used herein, it is meant that at least two phases of a composition occupy separate and distinct physical spaces inside packaging in which they are stored, but are in direct contact with one another (i.e., they are not separated by a barrier). In one embodiment of the present invention, multi-phased personal care compositions comprising at least two phases are present within a container as a visually distinct pattern. The pattern results from the mixing or homogenization of the multi-phased composition. The patterns include but are not limited to the following examples: striped, marbled, rectilinear, interrupted striped, check, mottled, veined, clustered, speckled, geometric, spotted, ribbons, helical, swirl, arrayed, variegated, textured, grooved, ridged, waved, sinusoidal, spiral, twisted, curved, cycle, streaks, striated, contoured, anisotropic, laced, weave or woven, basket weave, spotted, and tessellated. Preferably, the pattern is selected from the group consisting of striped, geometric, marbled, and combinations thereof. In a preferred embodiment, the striped pattern may be relatively uniform and even across the dimension of the package. Alternatively, the striped pattern may be uneven, i.e., wavy, or may be non-uniform in dimension. The striped pattern does not need to necessarily extend across the entire dimension of the package. The phases may be various different colors, or include particles, glitter or pearlescence.

[0025] As used herein, the term “personal care composition” refers to compositions that are intended to include only those compositions for topical application to the hair, skin or other regions of a human or animal body.

[0026] Referring to FIGS. 1 and 2, a personal care product 10 includes a personal care composition 12 contained within packaging, in this example, container 14. Container 14 includes a dispensing part 16 and a receptacle part 18 to form a containing volume for holding the personal care composition 12. A closure 15 such as a cap, lid, closable spout, etc. may be connected at the dispensing part 16 to inhibit unintended spillage of the personal care composition from the container 14. Container 14, in this example, may be referred to as an inverted container in that the dispensing part 16 or closure 15 can also provide a base of the container that can be used to support the container on a surface in an upright, standing position. In some embodiments, receptacle part 18 (or an additional component connected to the receptacle part) may be used to form the base or an additional base that can be used to support the container 14 in an upright, standing position. As will be described in greater detail below, container 14 includes a discrete visual indication area 20 displaying a visually distinct pattern.

[0027] In the embodiment of FIGS. 1 and 2, receptacle part 18 of the container 14 is formed of a transparent material such as a transparent thermoplastic material or transparent glass. A shrink sleeve or wrap 22 (shown in part by FIG. 2) envelops at least a portion of the receptacle part 18 by extending about a periphery of the receptacle part as a tube-like flexible sleeve. Shrink sleeve or wrap 22 may be made, for example, from a single film of plastic or may be laminated in two or more layers. Shrink sleeve or wrap 22 may be a pigmented or transparent glossy film which is printed on or in the case of a laminated film, at least one layer of film may be pigmented or printed by the addition of dyes or pigments before or at the point of extending the laminate. Shrink sleeve or wrap 22 may also be decorated with colors, designs, logos, usage instructions, health and regulatory symbols and warnings, and other written or graphical information. Such decorations may be done by flexo- or gravure-printing, lithography, offset printing, silk-screening and/or rotary screening. One exemplary method, known as reverse printing, is to print colors on the inside (i.e., container-facing side) of a label in order to maintain label glossiness. The shrink sleeve or wrap 22 is formed by forming the plastic film essentially into a tube, preferably by folding the film back upon itself forming a seam, and cutting the tube to form individual sleeves. As can be appreciated, by enveloping the transparent receptacle part 18 with the shrink sleeve or wrap 22 having printed or pigmented portions, an area of the transparent receptacle part 18 of the container 14 is obscured or even shielded from view; thus obscuring or even preventing viewing of the composition 12 disposed therein.

[0028] Visual indication area 20 displays a visually distinct pattern that is bounded by pre-printed or pigmented covering portion 24 that is translucent or opaque. In some embodiments, the visual indication area 20 is provided by forming the shrink sleeve 22 having a transparent viewing portion 26 (i.e., a window) that allows for viewing therethrough. For example, a transparent film used to form the shrink sleeve or wrap 22 may have the transparent portion 26 that is not printed or pigmented while adjacent portions are. In another embodiment, the visual indication area 20 is provided by removing (e.g., cutting, stamping, etc.) shrink sleeve or wrap 22 material to form the viewing portion 26 or window therethrough, for example, prior to applying the shrink sleeve or wrap 22 to the container 14. In this embodiment, the entire film may be pre-printed or pigmented prior to applying the shrink sleeve or wrap 22 to the container 14.

[0029] The illustrated container 14 has a face 28, a back 30, sides 32 and 34 extending between the front and the back, a longitudinal axis or centerline 38 and a lateral axis or centerline 40 substantially perpendicular to the longitudinal axis or centerline. In some implementations, face 28 may include visually pleasing designs, logos, etc. and back 30 may include directions, ingredients, etc. Visual indication area 20 has a portion disposed at the face 28 of the container 14 and a portion disposed at the side 32 of the container, overlapping a corner 36. Visual indication area 20 is offset laterally from the longitudinal centerline 38 and offset longitudinally from the lateral centerline 40 within a lower peripheral quadrant 42. In other embodiments, as will be described below, visual indication area may be located in other quadrants 46, 48, 50 and/or may overlap one or both centerlines 38, 40.

[0030] Viewing portion 26 forming the window is sized and arranged to allow for viewing of the personal care composition 12 disposed in the container 14 through the transparent receptacle part 18. Personal care composition 12 includes visually distinct phases 52 and 54 and the viewing
portion 26 is sized and arranged to allow for viewing of each of the visually distinct phases 52, 54. In some embodiments, the viewing portion 26 may be sized and arranged to allow for viewing of only some, but more than one visually distinct phases. In some embodiments, the viewing portion 26 may be sized and arranged to allow for viewing of all the visually distinct phases. While only two visually distinct phases 52 and 54 are illustrated, there may be more than two visually distinct phases viewable through the viewing portion 26 and forming the visual indication area 20, such as 4 or more regions, 6 or more regions, 10 or more regions, 15 or more regions, 20 or more regions, 40 or more regions, etc.

[0031] FIGS. 3A-3D individually illustrate the face 28, back 30 and sides 32, 34 of the container 14. As can be seen by FIGS. 3A-3D, at least one of the face 28, back 30 and sides 32, 34 is nearly or completely opaque due to covering portion 24. In the illustrated example, referring particularly to FIGS. 3A and 3B, back 30 and side 34 are nearly or completely covered by covering portion 24 of sleeve or wrap 22. In some embodiments, however, back 30 and side 34 may not be nearly or completely covered by covering portion 24. Referring to FIGS. 3C and 3D, face 28 and side 32 each include covering portion 24 and viewing portion 26. In some embodiments, viewing portion 26 of the face 28 may be about 70 percent or less (e.g., about 40 percent or less, about 30 percent or less, about 20 percent or less, about 10 percent or less, about 5 percent or less, between about 0.5 percent and about 70 percent, between about 0.5 percent and about 50 percent, between about 0.5 percent and 20 percent) of the total surface area of the face while, for example, covering portion 24 covers the remaining surface area. In some embodiments, viewing portion 26 of the side 32 may be about 70 percent or less (e.g., about 40 percent or less, about 30 percent or less, about 20 percent or less, about 10 percent or less, about 5 percent or less, between about 0.5 percent and about 70 percent, between about 0.5 percent and about 50 percent, between about 0.5 percent and 20 percent) of the total surface area of the side 32 while, for example, covering portion 24 covers the remaining surface area.

[0032] Referring now to FIG. 4, shrink sleeve or wrap 22 is shown removed from the container 14 after the sleeve or wrap 22 has been shrunk onto the container 14 in a flat, laid out state. As can be seen, a majority of the shrink sleeve or wrap 22 includes the covering portion 24 and a minority of the shrink sleeve includes the viewing portion 26.

[0033] Viewing portion 26 is in the shape of an oval. Any other suitable shape may be used such as polygons (e.g., squares, rectangles, etc.), circles, irregular shapes, etc. Shapes in the form of objects may also be used.

[0034] Shrink sleeve or wrap 22 may be formed by any suitable material. Suitable materials include thermoplastics such as polyvinylchloride (PVC), low, medium or high density polyethylene (LDPE, MDPE, HDPE), modified polyethylene terephthalate (PETG), polyethylene terephthalate (PET), polypropylene (PP) and oriented polypropylene (OPP), polystyrene (PS) and oriented polystyrene (OPS), and mixtures thereof.

[0035] Referring again to FIGS. 1 and 2, personal care composition 12 has visually distinct phases 52 and 54 that are viewable through the viewing portion 26 to form the visual indication area 20. Visual indication area 20 can provide a consumer with an indication that the personal care composition 12 includes visually distinct phases.

[0036] In one aspect, the personal care composition 12 includes two or more phases forming the visually distinct phases 52, 54. The first phase is in physical and/or intimate contact with the second phase. The first phase may be suspended or distributed within or along with the second phase in various patterns, such as, for example, striped, marbled, rectilinear, interrupted striped, check, mottled, veined, clustered, speckled, geometric, spotted, ribbons, helical, swirl, arrayed, variegated, textured, grooved, ridged, waved, sinusoidal, spiral, twisted, curved, cycle, streaks, striated, contoured, anisotropic, laced, weave or woven, basket weave, spotted and tessellated.

[0037] The two or more phases may be physically distinct as well as visually distinct. In one embodiment, the visually distinct phases may be of a different color, opacity or refractive index, thereby allowing the human eye to distinguish between the phases. In another aspect, one phase (or phases) may be visibly clear and the other phase (or phases) may be opaque or visibly not clear. In another aspect, an outer phase (i.e., the phase contacting the inner wall of the container) may be clear such that an inner phase (or phases) may be seen through the outer phase.


[0039] The personal care composition 12 may include, but are not limited to, shampoo, conditioner, antiperspirant, deodorant, hair styling products, cleansers, soaps, bodywash, cosmetics, foundations, lotions, creams, ointments, and hydro-alcoholic solutions. The phases may be one or a combination of a cleansing phase, a conditioning phase, a benefit phase, or the like. Further, one or more of the phases may also comprise additional components such as conditioning agents such as hydrolyzed collagen with trade name Pepstein 2000 available from Hormel, water soluble and water insoluble vitamins such as vitamin A, D, B1, B2, B6, B12, C, vitamin E with trade name Emix-d available from Eisai, panthenol available from Roche, pantothentic acid, panthenyl ethyl ether available from Roche, and their derivatives; hydrolyzed keratin, proteins, plant extracts, and nutrients; emulsions such as PPG-3 myristyl ether with trade
name Varonic APM available from Goldschmidt, Trimethyl pentanol hydroxyethyl ether, PPG-11 stearyl ether with trade name Varonic APS available from Goldschmidt; Stearyl heptanoate with trade name Tegosoft SH available from Goldschmidt, Lactil (mixture of Sodium lactate, Sodium PCA, Glycine, Fructose, Urea, Nicinamide, Glycerol, Inositol, Sodium Benzoxide, and Lactic acid) available from Goldschmidt, Sodium lactate, Sodium PCA, Glycine, Fructose, Urea, Nicinamide, Glycerol, Inositol, Sodium Benzoxide, Lactic acid, Ethyl hexyl palmitate with trade name Saracos available from Nishin Seiyu and with trade name Tegosoft OP available from Goldschmidt; hair-fixative polymers such as amphoteric fixative polymers, cationic fixative polymers, anionic fixative polymers, nonionic fixative polymers, and silicone grafted copolymers; preservatives such as benzyl alcohol, methyl paraben, propyl paraben and imidazolidinyl urea; pH adjusting a agents, such as citric acid, sodium citrate, sucrose acid, phosphoric acid, sodium hydroxide, sodium carbonate; salts, in general, such as potassium acetate and sodium chloride; coloring agents, such as any of the FD&C or D&C dyes, oxidative dyes and interference pigments; hair oxidizing (bleaching) agents, such as hydrogen peroxide, perborate and persulfate salts, carbonate; hair reducing agents such as the thioglycolates; perfumes; and sequestering agents, such as disodium ethylendiamine tetra-acetate; ultraviolet and infrared screening and absorbing agents such as octyl salicylate; antimicrobial agents; suspending agents; viscosity modifiers; nonvolatile solvents or diluents (water soluble and insoluble), pearlescent aids, foam boosters, additional surfactants or nonionic cosurfactants, pedulicidcs, chelants, skin active agents, sunscreens, UV absorbers, and, water soluble and insoluble amino acids such as asparagine, alanin, indole, glutamic acid, tyrosine, tryptamine, and their salts; and antioxidant agents such as zinc pyritinone, pyridinethione salts, azoxe, chlorinebazo, octopirox, salicyclic acid, selenium sulfide, particulate sulfur and mixtures thereof.

[0040] Referring now to FIGS. 5-7 various visual indication area 20 placements are illustrated. Viewing portion 26 placement and size can allow for selective viewing of the visually distinct phases 52 and 54, while inhibiting viewing of regions of the composition 12 where mixing may have occurred (e.g., due to shipping, handling, dispensing, etc.). This can be accomplished by locating the viewing portion 26 at a location where there is a lower probability of region or phase mixing. Additionally, in some embodiments, the placement of the visual indication area 20 can allow for viewing of the personal care composition 12 with the container 14 in different orientations, for example, facing forward with face 28 oriented toward the consumer and sideways with the side 32 facing toward the consumer.

[0041] FIG. 5 shows an embodiment where the visual indication area 20 is located in quadrant 48 and overlapping the lateral centerline 40. Viewing portion 26 formed by sleeve or wrap 22 has a relatively circular contour and is sized to allow for viewing of the visually distinct phases 52 and 54. Referring to FIG. 6, the visual indication area 20 may be located in multiple quadrants 42, 46, 48, 50. Viewing portion 26 has a relatively oval contour that extends over lateral centerline 40 to locate the visual indication area 20 in quadrants 46 and 50. While FIGS. 5 and 6 show visual indication areas that extend along the face 28 and the side 32, FIG. 7 shows an embodiment having a visual indication area 20 that is disposed entirely on face 28. Other configurations are possible. In some embodiments, visual indication area 20 may be located at any or all of face 28, back 30, and sides 32, 34.

[0042] While a shrink sleeve or wrap 22 is described above, any other suitable sleeves, wraps, etc. can be utilized. The sleeve or wrap may be formed of any suitable material such as paper (e.g., weighted paper), cardboard, foil, corrugated board, carton, or thermoplastic. Paper or cardboard can allow the total weight of plastic in the container 14 to be minimized and allow the sleeve to be easily separated from the container, whereas a plastic sleeve may eliminate any need to separate the sleeve from the container prior to recycling.

[0043] The sleeve or wrap may be wrapped around the container and glued into position or the sleeve or wrap may have an adhesive backing suitable to adhere the wrap to the container. As noted above, the sleeve may be fixed by heat shrinking or stretch wrapping. In the instances where heat shrinking is utilized, the viewing portion 26 should be sized and arranged such that after the sleeve has been shrunk, the viewing portion allows for viewing of the visually distinct phases as described above. Preferably, the sleeve or wrap covers at least about 30 percent of the outer surface of the container, such as at least about 50 percent, such as at least about 70 percent, such as at least about 80 percent of the outer surface of the container.

[0044] Referring to FIG. 8, other container types and shapes may include the visual indication area 20. FIG. 8 shows a round bottle 60 having a top 62, a base 64 and a cylindrical body 66. Visual indication area 20 is disposed on the body 66 between the top 62 and the base 64. Visual indication area 20 can be formed as described above using transparent cylindrical body 66, sleeve or wrap 22, viewing portion 26 and covering portion 24. Other exemplary container types include cartons, tubes, flexible packaging, jars, compacts, multi-component assemblies (e.g., deodorants, multi-chamber packages), positive displacement pumps, pressurized cansisters, blister packs, etc.

[0045] As an alternative to viewing portion 26 that allows for viewing of composition 12 through transparent body 66, referring to FIG. 9, a product may include a visual indication area 70 that is formed using a preprinted film 72. In some embodiments, the visual indication area 70 may be formed by a preprinted portion 78 of the sleeve or wrap 22 that includes preprinted and visually distinct phases 74 and 76. The preprinted portion 78 may be semi-transparent or opaque. As an alternative, visual indication area 70 may be formed using the container itself, for example, without use of any sleeve or wrap. In these embodiments, only a portion of the receptacle part 18 or body 66 may be transparent to provide viewing portion 26 and allow for viewing of the composition disposed therein while other portions of the receptacle part 18 or body 66 are opaque or translucent to provide the covering portion 24.

[0046] All documents cited in the Detailed Description of the Invention are, in relevant part, incorporated herein by reference; the citation of any document is not to be construed as an admission that it is prior art with respect to the present invention. To the extent that any meaning or definition of a term in this written document conflicts with any meaning or definition of the term in a document incorporated by reference, the meaning or definition assigned to the term in this written document shall govern.
While particular embodiments of the present invention have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the invention. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of this invention.

What is claimed is:

1. A personal care product comprising:
   a) a container;
   b) a personal care composition having at least two visually distinct phases disposed in the container;
   c) a covering portion that inhibits viewing of the composition within the container; and
   d) a transparent viewing portion covering from about 0.5% to about 70% of the total surface area of the container exclusive of any closure, that allows for viewing of the visually distinct phases within the container.

2. A personal care product according to claim 1 wherein the viewing portion covers from about 0.5% to about 50% of the total surface area of the container exclusive of any closure.

3. A personal care product according to claim 1 wherein the viewing portion covers from about 0.5% to about 30% of the total surface area of the container exclusive of any closure.

4. A personal care product according to claim 1 wherein the viewing portion is completely bounded by the covering portion.

5. A personal care product according to claim 1, wherein the container has a transparent body.

6. A personal care product according to claim 1 wherein the covering portion is selected from the group consisting of shrink sleeves, shrink wraps, and adhesive labels.

7. A personal care product according to claim 6, wherein the covering portion includes a window defining the transparent viewing portion to allow viewing of the visually distinct phases through the transparent body.

8. A personal care product according to claim 7, wherein the window is formed by a transparent area of the covering portion.

9. A personal care product according to claim 7, wherein the window is formed by an opening in the covering portion.

10. A personal care product according to claim 7 wherein the window is in the form of a geometric shape.

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