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[Document Name] Description

[Title of the Invention] Composition containing an oxidizing agent and method for using the same

TECHNICAL FIELD

[0001]

The present invention relates to a composition containing an oxidizing agent for use as hair dyeing or hair bleaching/destaining agents and a method for using the same.

BACKGROUND ART

[0002]

Generally, as a hair treatment composition, a hair dyeing agent or a hair bleaching/destaining agent which exerts an effect by mixing a plurality of agents is known. As such a hair treatment agent composition, for example, an oxidative hair dye composed of a first agent containing an alkaline agent and an oxidative dye and a second agent containing an oxidizing agent, for example, hydrogen peroxide (composition containing an oxidizing agent) is known.

[0003]

In an oxidative hair dyeing agent, an oily component is known as a component for improving the feel of hair after the hair dyeing treatment. For examples, Patent Document 1 discloses an oxidizing agent-containing emulsified composition containing an oily component such as a hydrocarbon.

CITATION LIST

PATENT DOCUMENT

[0004]

Patent Document 1: JP2016-008175 A

SUMMARY OF THE INVENTION

PROBLEM TO BE SOLVED BY THE INVENTION

[0005]

However, when a relatively large amount of a hydrocarbon in liquid form at 25 °C is added in a composition containing an oxidizing agent, there is a problem that the stability of the formulation is lowered.

The object of the present invention is to provide a composition containing an oxidizing agent and a method of using the same which can improve the stability of a preparation in a composition containing an oxidizing agent used as a hair dyeing agent or a hair bleaching/destaining agent.

MEANS FOR SOLVING PROBLEMS

[0006]

The present invention is based on the finding that the formulation stability of a composition containing an oxidizing agent containing a predetermined amount of a hydrocarbon in liquid form at 25 °C can be improved by combining a specific non-ionic surfactant and a higher alcohol. The value of mass % indicating the content of the component is a value in a dosage forms including a solubilizing agent such as water when used.

[0007]

In order to achieve the above object, one embodiment of the present invention is a composition containing an oxidizing agent used as a hair dyeing agent or a hair bleaching/destaining agent in admixture with an agent containing an alkaline agent, wherein the composition contains (A) 4 mass % or more of a hydrocarbon in liquid form at 25 °C, (B) a non-ionic surfactant having an HLB of 8 or less and (C) higher alcohols.

[0008]

The non-ionic surfactant may be at least one selected from monoglycerol fatty acid esters and polyglycerol fatty acid esters. The component (C) may be a higher alcohol having 20 or more carbon atoms. The total mass ratio of the content of the component

(A) and the component (C) to the content of the component (B) may be 3 to 50.

[0009]

In another embodiment of the present invention, it provides a method for using the composition containing the oxidizing agent, the method characterized comprising a step of mixing the composition containing the oxidizing agent with an agent containing an alkaline agent to prepare a hair dyeing agent or a hair bleaching/destaining agent.

EFFECTS OF THE INVENTION

[0010]

According to the present invention, the formulation stability can be improved.

DETAILED DESCRIPTION OF THE INVENTION

[0011]

One embodiment of a composition containing an oxidizing agent of the present invention will be described below. The composition containing an oxidizing agent is constituted as, for example, a second agent a hair dyeing agent or a hair bleaching/destaining agent containing an alkaline agent and an oxidizing agent. The specific examples of the hair dyeing agent or the hair bleaching/destaining include, for example, a two-agent type hair dyeing agent or hair bleaching/destaining agent, a three-agent type hair dyeing agent or hair bleaching/destaining agent and others. Hereinafter, components of a hair dyeing agent or a hair bleaching/destaining agent containing a second agent constituted as the composition containing an oxidizing agent will be exemplified.

[0012]

<Two-agent type hair bleaching/destaining agent>

The two-agent type hair bleaching/destaining agent is composed of, for example, a first agent containing at least an alkaline agent and a second agent containing at least an oxidizing agent.

[0013]

(Second agent of a two-agent type hair bleaching/destaining agent)

The second agent contains (A) a non-ionic surfactant having an HLB of 8 or less, (B) 4 mass % or more of a hydrocarbon in liquid form at 25 °C, (C) a higher alcohol and

others, in addition to an oxidizing agent

[0014]

The oxidizing agent improves the decolorization of melanin contained in hair. The specific examples of oxidizing agents include, for example, hydrogen peroxide, urea peroxide, melamine peroxide, sodium percarbonate, sodium perborate, potassium perborate, ammonium persulfate, potassium persulfate, sodium persulfate, sodium peroxide, potassium peroxide, magnesium peroxide, barium peroxide, calcium peroxide, strontium peroxide, hydrogen peroxide adduct of sulfate, hydrogen peroxide adduct of phosphate, hydrogen peroxide adduct of pyrophosphate and others. Among the specific examples of these oxidizing agents, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0015]

The lower limit of the content of the oxidizing agent in the second agent is appropriately set, and is preferably 0.1 mass % or more, more preferably 2.0 mass % or more and still more preferably 3.0 mass % or more. When the content of the oxidizing agent is 0.1 mass % or more, the decolorization property of melanin can be further improved. The upper limit of the content of the oxidizing agent in the second agent is appropriately set, and is preferably 15.0 mass % or less, more preferably 9.0 mass % or less and still more preferably 6.0 mass % or less. When the content of the oxidizing agent is 15.0 mass % or less, damage to hair and others can be suppressed.

[0016]

When hydrogen peroxide is added to the second agent as an oxidizing agent, the second agent preferably contains a stabilizing agent, such as sodium stannate, ethylene glycol phenyl ether (phenoxyethanol), hydroxyethanediphosphonic acid or salt thereof, in order to improve the stability of the hydrogen peroxide. The specific examples of the hydroxyethanediphosphonates include, for example, tetrasodium hydroxyethanediphosphonate, disodium hydroxyethanediphosphonate and others.

[0017]

(A) The hydrocarbons in liquid form at 25 °C improve the lightness and feel of hair after hair treatment. The specific examples of component (A) include, for example, α -olefin oligomers, light isoparaffins, light flowing isoparaffins, synthetic squalanes, plant-based squalanes, squalanes, polybutene, liquid paraffins, polyisobutene,

hydrogenated polyisobutene and others. Of these specific examples, only one kind may be contained alone, or two or more kinds may be contained in combination. Among these, α -olefin oligomer, squalane, liquid paraffin and light liquid isoparaffin are preferable, and α -olefin oligomer, liquid paraffin and light liquid isoparaffin are more preferable from the viewpoint of excellent effect of improving lightness and feel while maintaining formulation stability.

[0018]

The lower limit of the content of the component (A) in the second agent is 4 mass % or more, preferably 5 mass % or more and more preferably 8 mass % or more. When the content is 4 mass % or more, the lightness and feel of the hair after the hair treatment are improved. The upper limit of the content of the component (A) in the second agent is appropriately set, and is preferably 40 mass % or less, more preferably 30 mass % or less and still more preferably 25 mass % or less. When the content is 40 mass % or less, the feel of the hair after the hair treatment is improved. In addition, the mixing property with the first agent is improved.

[0019]

(B) The non-ionic surfactants with an HLB of 8 or less improve formulation stability. As the component (B), ether-type non-ionic surfactants such as polyoxyethylene (hereinafter referred to as "POE") alkyl ether-type non-ionic surfactants, ester-type non-ionic surfactants such as monoglycerol fatty acid esters, polyglycerol fatty acid esters and sorbitan fatty acid esters. Among these, ester type non-ionic surfactants are preferable from the viewpoint of excellent improvement effect of formulation stability, and monoglycerin fatty acid ester and polyglycerin fatty acid ester are more preferable. In the component (B), the HLB value of the non-ionic surfactant is 8 or less, preferably 7 or less and more preferably 6 or less. Lower HLB values can further improve formulation stability. It is preferable to combine two or more components (B) from the viewpoint of improving the of the formulation stability. When two or more components (B) are used in combination, it is preferable to use a POE alkyl ether type non-ionic surfactant in combination with an ester type non-ionic surfactant, and it is more preferable to use a POE alkyl ether type non-ionic surfactant in combination with a monoglycerol fatty acid ester or a polyglycerol fatty acid ester.

[0020]

The specific examples of component (B) are listed below. The numerical values in parentheses of the compound name POE indicate the number of moles of addition of E.O. In the present invention, the HLB value is a value obtained by an actual measurement value described later, and list numerical values described in the catalog of Nikko Chemicals Co., Ltd. in 2014 as reference values. The specific examples of component (B) include, for example, POE(3)alkyl (C12-14) ether (HLB:8), POE(2)cetyl ether (HLB:8.0), POE(2)myristyl ether (HLB:5.8), POE(3)myristyl ether (HLB:7.7), POE(2)hexyldecyl ether (HLB:5.3), POE(2)stearyl ether (HLB:8.0), POE(2)oleyl ether (HLB:4.9), POE(3)oleyl ether (HLB: 6.6), POE(2)octyl dodecyl ether (HLB:4.6), POE(2)behenyl ether (HLB:4.3), POE(3)behenyl ether (HLB:5.8), POE(5)behenyl ether (HLB:7.0), lipophilic glyceryl monooleate (HLB:2.5), lipophilic glyceryl monostearate (HLB:4.0), self-emulsifying glyceryl monostearate (HLB:6.0), glyceryl monomyristate (HLB:3.5), polyglyceryl monostearate (HLB:5.0), sorbitan monooleate (HLB:4.3), sorbitan sesquioleate (HLB: 3.7), sorbitan trioleate (HLB:1.7), sorbitan monostearate (HLB:4.7), sorbitan monopalmitate (HLB: 6.7) and others. Of these specific examples, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0021]

Note that HLB (hydrophile-lipophile balance) is a numerical value considered by W.C. Griffin and given for the non-ionic surfactant, and represents the balance between the strength of the lipophilic group (alkyl group) and the strength of the hydrophilic group (ethylene oxide chain) of the non-ionic surfactant by a numerical value. For the HLB value, the measured value calculated from the emulsification method is used (see "Handbook: cosmetics and pharmaceutical raw materials", Nikko Chemicals Co., Ltd. (Revised February 1, 1977)). The measured HLB value is measured by combining sorbitan monostearate (e.g., NIKKOL SS-10, HLB value 4.7, Nikko Chemicals, Inc.) and polyoxyethylene sorbitan monostearate (e.g., NIKKOL TS-10, HLB value 14.9, Nikko Chemicals, Inc.) as standards for surfactants. Fluid paraffin is used for the emulsified product. If the liquid paraffin fluctuation depending on the kind or lot is considered, the measurement is each time. The liquid paraffin is emulsified with the above two kinds of surfactants, the optimum ratio of the surfactants is determined, and the required HLB value of the liquid paraffin (the HLB value to be emulsified) is

determined. The calculation formula is shown in Equation (1).

[0022]

[Formula 1]

HLB value of the liquid paraffin =

$$\frac{(\text{HLB value of the polyoxyethylene sorbitan monostearate} \times \text{used \%}) + (\text{HLB value of the sorbitan monostearate} \times \text{used \%})}{100}$$

• • • (1)

Normally, the required HLB value of liquid paraffin is 10, depending on the kind and lot. It is about 1 to 10.3. The HLBs of the unknown surfactants are then measured using the liquid paraffins for which the required HLB values have been determined. When the unknown surfactant is hydrophilic, it is combined with sorbitan monostearate, and when the unknown surfactant is hydrophobic, it is combined with polyoxyethylene sorbitan monostearate to emulsify the liquid paraffin, an optimum ratio at which stability is obtained, and the HLB value of the unknown surfactant is applied to the above formula (1) as x.

[0023]

The lower limit of the content of the component (B) in the second agent is appropriately set, and is preferably 0.01 mass % or more, more preferably 0.1 mass % or more and still more preferably 0.65 mass % or more. When the content of the component (B) is 0.01 mass % or more, the formulation stability is further improved. The upper limit of the content of the component (B) in the second agent is appropriately set, and is preferably 10 mass % or less, more preferably 5 mass % or less and still more preferably 2 mass % or less. When the content of the component (B) is 10 mass % or less, the formulation stability is further improved.

[0024]

(C) The higher alcohols improve formulation stability and mixing with the first agent.

(C) The specific examples of higher alcohols include, for example, cetyl alcohol (cetanol), 2-hexyldecanol, stearyl alcohol, isostearyl alcohol, cetostearyl alcohol, oleyl alcohol, arachidyl alcohol, behenyl alcohol, 2-octyldodecanol, lauryl alcohol, myristyl alcohol, decyltetradecanol, lanolin alcohol and others. Of these, only one kind may be contained alone, or two or more kinds may be contained in combination. Among these, higher alcohols having 20 or more carbon atoms are preferable, and behenyl alcohol and

arachidyl alcohol are more preferable from the viewpoint of excellent effect of improving the formulation stability and the mixing property with the first agent. When a mixture of two or more components (C) is used, it is preferable to include higher alcohols having 20 or more carbon atoms. In addition, when behenyl alcohol is applied, particularly even when the second agent is in the form of an emulsion having a viscosity of 10000 mPa.s or less at 25 °C, the admixture with the first agent is improved while maintaining the lightness and the formulation stability.

[0025]

The lower limit of the content of the component (C) in the second agent is appropriately set, and is preferably 0.1 mass % or more, more preferably 1 mass % or more and still more preferably 2 mass % or more. When the content of the component (C) is 0.1 mass % or more, the formulation stability is further improved. The upper limit of the content of the component (C) in the second agent is appropriately set, and is preferably 20 mass % or less, more preferably 10 mass % or less and still more preferably 8 mass % or less. When the content of the component (C) is 20 mass % or less, the formulation stability is further improved. In addition, the mixing property with the first agent is improved.

[0026]

The lower limit of the mass ratio of the total content of the component (A) and component (C) to the content of the component (B) in the second agent is appropriately set, and is preferably 3 or more, more preferably 5 or more and still more preferably 7 or more. The upper limit of the mass ratio is appropriately set, and is preferably 50 or less, more preferably 45 or less and still more preferably 40 or less. By defining such a mass ratio within the above range, the formulation stability is further improved.

[0027]

The lower limit of the mass ratio of the content of the component (A) to the content of the component (B) in the second agent is appropriately set, and is preferably 1 or more, more preferably 5 or more and still more preferably 8 or more. The upper limit of the mass ratio is appropriately set, and is preferably 50 or less, more preferably 40 or less and still more preferably 30 or less. By defining such a mass ratio within the above range, the formulation stability is further improved.

[0028]

The hair bleaching/destaining agent may further contain components other than above,

for example, solubilizing agents, water-soluble polymers, inorganic polymers, oily components other than above, polyhydric alcohols, surfactants other than above, pH adjusting agents, sugars, preservatives, stabilizers, plant extracts, crude drug extracts, vitamins, perfumes, antioxidants, chelating agents, ultraviolet absorbers and others, as necessary.

[0029]

The solubilizing agent is added, for example, when the second agent is in a liquid state. The examples of solubilizing agents used include, for example, water and organic solvents. The specific examples of the organic solvents include, for example, ethanol, n-propanol, isopropanol, methylcellosolve, ethylcellosolve, methylcarbitol, ethylcarbitol, benzylalcohol, phenethylalcohol, γ -phenylpropyl alcohol, cinnamic alcohol, anise alcohol, p-methylbenzyl alcohol, α -dimethylphenethylalcohol, α -phenyl ethanol, ethyleneglycolphenylether (phenoxyethanol), phenoxyisopropanol, 2-benzyloxyethanol, N-alkylpyrrolidone, alkylene carbonate, alkyl ether and others. Of these solubilizing agents, only one kind may be contained alone, or two or more kinds may be contained in combination. Among these, water is preferably applied because of its excellent ability to dissolve other components in the second agent. When water is used as the solvent, the content of water in the second agent (at the time of use) is preferably 40 mass % or more, more preferably 50 mass % or more.

[0030]

The water-soluble polymer provides a moderate viscosity to the hair bleaching/destaining agent. Therefore, the hair bleaching/destaining agent may contain a water-soluble polymer within a range that does not inhibit the effect of the present invention. The examples of the water-soluble polymers include a natural polymer, a semi-synthetic polymer and a synthetic polymer. The specific examples of natural polymers include, for example, starch, guar gum, locust bean gum, quince seed, carrageenan, galactan, gum arabic, tragacanth gum, pectin, mannan, xanthan gum, dextran, succinoglucan, curdlan, hyaluronic acid, gelatin, casein, albumin, collagen, dextrin, triglucopolysaccharide (pullulan) and others.

[0031]

The specific examples of semisynthetic polymers include, for example, crystalline cellulose, methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxyethylcellulose

dimethyldiallylammonium chloride, hydroxypropylcellulose, carboxymethylcellulose, sodium carboxymethylcellulose, hydroxypropylmethylcellulose, cationized cellulose, cationized guar gum, starch phosphate ester, propylene glycol alginate ester, alginate and others.

[0032]

The specific examples of synthetic polymers include, for example, polyvinylcaprolactam, polyvinyl alcohol (PVA), polyvinylpyrrolidone (PVP), vinylpyrrolidone-vinyl acetate (VP/VA) copolymers, polyvinyl butyral, polyvinyl methylether, carboxyvinyl polymer, sodium polyacrylate, polyacrylamide, polyethylene oxide, ethylene oxide-propylene oxide block copolymers, acrylic acid/alkyl acrylate copolymers, polydimethylmethylenepiperidinium chloride (polydimethyldimethylene pyrrolidinium chloride) (polyquaternium-6) (Marquat 100: Merck), and copolymer include half esters of itaconic acid and POE alkyl ether, or esters of methacrylic acid and POE alkyl ether and at least one monomer selected from acrylic acid, methacrylic acid and alkyl esters thereof. Of these, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0033]

The specific examples of the inorganic polymers include, for example, bentonite, magnesium aluminum silicate, laponite, hectorite and silicic anhydride and others. Of these, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0034]

The oily component particularly gives the hair a lubricious feel. Therefore, the hair bleaching/destaining agent may further contain an oily component shown below within a range that does not inhibit the effect of the present invention. The examples of the oily components include fats and oils, waxes, hydrocarbons in a solid state at 25 °C, ester oils, higher fatty acids, alkyl glyceryl ethers, silicones and others.

[0035]

The specific examples of oils and fats include, for example, argania spinosa kernel oil, olive oil, tsubaki oil, shea butter, almond oil, safflower oil, sunflower oil, soybean oil, cottonseed oil, sesame oil, corn oil, rapeseed oil, rice bran oil, rice germ oil, grape seed oil, avocado oil, macadamia nut oil, castor oil, coconut oil, evening primrose oil, apricot

kernel oil, persic oil, peach kernel oil, palm oil, egg yolk oil and others. The specific examples of the waxes include, for example, lanolin, beeswax, candelilla wax, carnauba wax, jojoba oil and others. The specific examples of the hydrocarbon in a solid state at 25 °C include, for example, paraffin, polyethylene, microcrystalline wax, petrolatum, isoparaffin and others.

[0036]

The specific examples of ester oils include, for example, diisopropyl adipate, isopropyl myristate, cetyl octanoate, isononyl isononanoate, octyldodecyl myristate, isopropyl palmitate, stearyl stearate, myristyl myristate, isotridecyl myristate, 2-ethylhexyl palmitate, octyldecyl lysinolate, cholesteryl/lanosteryl fatty acid having 10 to 30 carbon atoms, cetyl lactate, lanolin acetate, ethylene glycol di-2-ethylhexanoate, pentaerythritol fatty acid esters, dipentaerythritol fatty acid esters, cetyl caprate, glyceryl tricaprilate, diisostearyl malate, dioctyl succinate, cetyl 2-ethylhexanoate, isostearic acid-hardened castor oil and others.

[0037]

The specific examples of higher fatty acids include, for example, lauric acid, myristic acid, palmitic acid, stearic acid, behenic acid, isostearic acid, 12-hydroxystearic acid, oleic acid, lanolic fatty acid and others. The specific examples of alkyl glyceryl ethers include, for example, batyl alcohol, chimyl alcohol, ceralkyl alcohol, isostearyl glyceryl ether and others.

[0038]

The specific examples of silicones include, for example, dimethylpolysiloxane (dimethicone), methylphenyl polysiloxane, decamethylcyclopentachloroxane, dodecamethylcyclohexasiloxane, terminal hydroxyl-modified dimethylpolysiloxane, highly polymerized silicone, polyether-modified silicone (e.g., (PEG/PPG/butylene/dimethicone) copolymer), amino-modified silicone, betaine-modified silicone, alkyl-modified silicone, alkoxy-modified silicone, mercapto-modified silicone, carboxy-modified silicone, fluorine-modified silicone and others. Of these oily components, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0039]

The examples of the polyhydric alcohols include glycol, glycerin and others. The

examples of glycols include ethylene glycol, diethylene glycol, triethylene glycol, polyethylene glycol, highly polymerized polyethylene glycol, propylene glycol, dipropylene glycol, polypropylene glycol, isoprene glycol, 1,3-butylene glycol and others. The examples of glycerins include glycerin, diglycerin, polyglycerin and others. Of these polyhydric alcohols, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0040]

The surfactant emulsifies or solubilizes the hair bleaching/destaining agent as an emulsifying agent or an ingredient for solubilizing each ingredient, thereby adjusting the viscosity or improving the viscosity stability when the hair bleaching/destaining agent is used. Therefore, the hair bleaching/destaining agent may further contain a surfactant shown below within a range that does not inhibit the effect of the present invention. The surfactants include anionic surfactants, cationic surfactants, amphoteric surfactants and non-ionic surfactants with an HLB greater than 8.

[0041]

The specific examples of anionic surfactants include, for example, alkyl ether sulfates, alkyl sulfates, alkyl ether sulfates, alkenyl ether sulfates, alkenyl sulfates, olefin sulfonate, alkane sulfonate, saturated or unsaturated fatty acid salts, alkyl or alkenyl ether carboxylates, α -sulfonic fatty acid salts, N-acylamino acid type surfactants, phosphate mono or diester type surfactants, sulfosuccinate esters, N-alkyloylmethyltaurine salts and derivatives thereof. The specific examples of the counter ion of the anionic group of these surfactants include, for example, sodium ion, potassium ion, triethanolamine and others. More specifically, examples of the alkyl ether sulfate ester salts include, for example, sodium POE lauryl ether sulfate. The specific examples of alkyl sulfates include, for example, sodium lauryl sulfate, sodium cetyl sulfate and others. The specific examples of derivatives of alkyl sulfates include, for example, POE sodium lauryl sulfate and others. The specific examples of the sulfosuccinate esters include, for example, lauryl disodium sulfosuccinate and others. The specific examples of the N-alkyloylmethyltaurine salts include, for example, N-stearoyl-N-methyltaurine sodium and others.

[0042]

The cationic surfactants further improve formulation stability. Therefore, the second

agent may further contain a cationic surfactant within a range that does not inhibit the effect of the present invention. Specific examples of cationic surfactants include, for example, lauryltrimethylammonium chloride, cetyltrimethylammonium chloride, stearyltrimethylammonium chloride, alkyltrimethylammonium chloride, distearyldimethylammonium chloride, cetyltrimethylammonium bromide, stearyltrimethylammonium bromide, ethysulfate lanolin fatty acid aminopropylethyldimethylammonium, stearyltrimethylammonium saccharin, cetyltrimethylammonium saccharin, methacryloyloxyethyltrimethylammonium chloride, methylbehenyltrimethylammonium sulfate, behenyldimethylamine, behenic acid diethylaminoethylamide, behenic acid dimethylaminopropylamide, behenic acid dimethylaminoethylamide, stearyl dimethylamine, palmitoxypropyldimethylamine, stearoxypropyl dimethylamine, dimethylaminopropylamide stearate and others. The specific examples of alkyltrimethylammonium chlorides include, for example, behenyltrimethylammonium chloride, arakyltrimethylammonium chloride and others. Among these specific examples, lauryltrimethylammonium chloride, cetyltrimethylammonium chloride, stearyltrimethylammonium chloride, alkyltrimethylammonium chloride are preferable from the viewpoint of excellent improvement effect of formulation stability.

[0043]

The lower limit of the content of the cationic surfactant in the second agent is appropriately set, and is preferably 0.01 mass % or more, more preferably 0.05 mass % or more and still more preferably 0.1 mass % or more. When the content of the cationic surfactant is 0.01 mass % or more, the formulation stability is further improved. The upper limit of the content of the cationic surfactant in the second agent is appropriately set, and is preferably 10 mass % or less, more preferably 5 mass % or less and still more preferably 1 mass % or less. When the content of the cationic surfactant is 10 mass % or less, the formulation stability is further improved.

[0044]

The specific examples of the amphoteric surfactants include, for example, cocobetaine, lauramidopropyl betaine, cocamidopropyl betaine, sodium lauroamfoacetate, sodium cocoamfoacetate, palm oil fatty acid amidopropyl betaine, lauryl betaine (lauryl dimethylaminoacetate betaine), sodium lauryl aminopropionate and others.

[0045]

The non-ionic surfactant is selected from those having an HLB greater than 8. The combination of the component (B) and the non-ionic surfactant having an HLB value of more than 8 further improves the stability of the preparation. Therefore, it is preferable that the second agent further contains a non-ionic surfactant having an HLB of greater than 8 within a range that does not inhibit the effect of the present invention. The specific examples of the non-ionic surfactants include, for example, an ether-type non-ionic surfactant, an ester-type non-ionic surfactant, an alkyl glucoside and others. The specific examples of ether-type non-ionic surfactants include, for example, POE cetyl ether (cetes), POE stearyl ether (steares), POE behenyl ether, POE oleyl ether (oles), POE lauryl ether (laures), POE octyldodecyl ether, POE hexyl decyl ether, POE isostearyl ether, POE nonylphenyl ether, POE octyl phenyl ether, POE polyoxypropylene cetyl ether, POE polyoxypropylene decyl tetradecyl ether and others.

[0046]

Specific examples of ester-type non-ionic surfactants include, for example, POE sorbitan monooleate, POE sorbitan monostearate, POE sorbitan monopalmitate, POE sorbitan monolaurate, POE sorbitan trioleate, POE glyceryl monostearate, POE glyceryl monomyristate, POE sorbit tetraoleate, POE sorbite hexastearate, POE sorbite monolaurate, POE sorbitol beeswax, polyethyleneglycol monooleate, polyethyleneglycol monostearate, polyethyleneglycol monolaurate, sorbitan monolaurate, sucrose fatty acid ester, decaglyceryl monolaurate, decaglyceryl monostearate, decaglyceryl monooleate, decaglyceryl monomyristate, POE-reduced lanolin and others.

[0047]

The specific examples of alkyl glucosides include, for example, alkyl (8-16 carbon) glucosides, POE methyl glucosides, POE dioleate methyl glucoside and others. Of these specific examples of surfactants, only one kind may be contained alone, or two or more kinds may be contained in combination. Among these non-ionic surfactants, POE cetyl ether (ceteth), POE stearyl ether (stearle) and POE behenyl ether are preferable from the viewpoint of improving the formulation stabilities.

[0048]

The pH adjusting agent may be formulated to adjust the pH of the hair

bleaching/destaining agent. The examples of the pH adjusting agents include inorganic acids, organic acids or salt thereof and others. The specific examples of the inorganic acids include, for example, phosphoric acid, hydrochloric acid, nitric acid, sulfuric acid, boric acid and others. The specific examples of phosphoric acids include, for example, orthophosphoric acid, polyphosphoric acid, pyrophosphate, metaphosphoric acid and others. The specific examples of the organic acids include, for example, citric acid, tartaric acid, lactic acid, malic acid, succinic acid, fumaric acid, maleic acid, gluconic acid, glucuronic acid, benzoic acid and others. The specific examples of the salts include, for example, a sodium salt, a potassium salt, an ammonium salt and others. The specific examples of sugars include, for example, monosaccharides such as glucose and galactose and others, disaccharides such as maltose, sucrose, fructose and trehalose, sugar alcohols and others. The specific examples of preservatives include, for example, paraben, methylparaben, sodium benzoate and others. The specific examples of the stabilizers include, for example, phenacetin, 8-hydroxyquinoline, acetanilide, sodium pyrophosphate, barbituric acid, uric acid, tannic acid and others. The specific examples of the antioxidants include, for example, ascorbic acids, sulfites and others. The specific examples of chelating agents include, for example, edetic acid (ethylenediaminetetraacetic acid (EDTA)), disodium edetate, tetrasodium edetate, diethylenetriamine pentaacetic acid or salt thereof, ethylenediaminehydroxyethyltriacetic acid or salt thereof, hydroxyethanediphosphonic acid (HEDP) or salt thereof and others.

[0049]

The dosage form of the second agent is not particularly limited, and specific examples of the dosage forms at 25 °C includes, for example, a liquid form such as an aqueous solution or an emulsion, a gel form, a foam form, a cream form and others. In addition, aerosols, non-aerosols and others may be used, and in the case of non-aerosols, various forms such as a squeeze former type and a pump former type may be further used. In the case of aerosols, known propellants and blowing agents can be applied. The specific examples of the propellant or the blowing agents include, for example, liquefied petroleum gas (LPG), dimethylether (DME), nitrogen gas, carbon dioxide gas and others. Only one of these may be used, or two or more kinds may be used in combination.

[0050]

(The first agent of the two-agent type hair bleaching/destaining agents)

The first agent contains an alkaline agent. The alkaline agent contained in the first agent promotes the action of the oxidizing agent contained in the second agent, and functions to improve the bleaching effect and/or the destaining effect of the hair. In the hair dyeing agent described later, the hair dyeing property is improved.

[0051]

The specific examples of the alkaline agents include, for example, ammonia, alkanolamine, silicate, carbonate, bicarbonate, metasilicate, sulfate, chloride, phosphate, organic amine, basic amino acid, alkali metal or alkaline earth metal hydroxide and others. The specific examples of alkanolamines include, for example, monoethanolamine, triethanolamine and others. The specific examples of the silicates include, for example, sodium silicate, potassium silicate and others. The specific examples of carbonates include, for example, sodium carbonate, ammonium carbonate and others. The specific examples of the bicarbonates include, for example, sodium bicarbonate, ammonium bicarbonate and others. The specific examples of the metasilicates include, for example, sodium metasilicate, potassium metasilicate and others. The specific examples of the sulfates include, for example, ammonium sulfate and others. The specific examples of the chlorides include, for example, ammonium chloride and others. The specific examples of the phosphates include, for example, ammonium dihydrogen phosphate, diammonium hydrogen phosphate, sodium dihydrogen phosphate, disodium hydrogen phosphate, trisodium phosphate and others. The specific examples of organic amines include, for example, 2-amino-2-methyl-1-propanol (AMP), 2-amino-2-methyl-1,3-propanediol, guanidine, 1-amino-2-propanol (MIPA) and others. The specific examples of the basic amino acids include, for example, arginine, lysine and others. The specific examples of the hydroxide of the alkali metal or alkaline earth metals include, for example, sodium hydroxide, potassium hydroxide and others. Of these alkaline agents, only one kind may be contained alone, or two or more kinds may be contained in combination. Among these, ammonia, ammonium salt, alkanolamine and carbonate are preferably used from the viewpoint of excellent effect of improving the lightness of hair.

[0052]

The content of the hair bleaching/destaining agent, that is, the alkaline agent in the mixture of the first agent and the second agent at the time of use, when the hair bleaching/destaining agent is applied to the normal bleaching/destaining treatment, is preferably added in an amount having a pH in the range of 7 to 12, more preferably in an amount having a pH in the range of pH9 to 12. By setting the pH of the mixture to 7 or more, the action of the oxidizing agents included in the second agent can be promoted. By setting the pH of the mixture to 12 or less, it is possible to suppress damage to the hair due to application of the hair bleaching/destaining agent. In addition, the pH of the hair bleaching/destaining agent shall be measured at 25°C of the stock solution of the hair bleaching/destaining agent.

[0053]

The first agent is generally contained in the hair bleaching/destaining agent, and may contain components which do not inhibit the action of the above-mentioned components. For example, a component contained in the above-mentioned second agent may be appropriately contained within a range that does not inhibit the effect of the present invention.

[0054]

The dosage form of the first agent is not particularly limited, and specific examples of the dosage forms at 25 °C includes, for example, a liquid such as an aqueous solution or emulsion, a gel form, a foam form, a cream form, a solid form and others. In addition, aerosols, non-aerosols and others may be used. In the case of aerosols, known propellants and blowing agents can be applied. Solid forms include powdery, granular, tablet and others. In the case of solid dosage forms, dispersing agents, for example, metal stearates such as calcium stearate, magnesium stearate, sodium sulfate, talc, lactose, hydroxypropylcellulose having a low degree of substitution may also be added. Only one of these may be used, or two or more kinds may be used in combination.

[0055]

<The three-agent type hair bleaching/destaining agent>

The three-agent type hair bleaching/destaining agent is, for example, a first agent having the same composition as the first agent of the above-mentioned two-agent type hair bleaching/destaining agent, a second agent having the same composition as the second agent of the above-mentioned two-agent type hair bleaching/destaining agent,

and a third agent containing at least percarbonate. The three-agent hair bleaching/destaining agent is constructed as described above further improves lightness because percarbonate is used in combination as an oxidizing agent.

[0056]

(The third agent of three-agent type hair bleaching/destaining agent)

The third agent can be added a dispersant and others in addition to the percarbonate. The percarbonates improve the oxidizing action and further improve the lightness of the hair after hair treatment. The specific examples of the percarbonates include sodium percarbonate, potassium percarbonate and others. Of these specific examples, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0057]

The dosage form of the third agent is preferably a solid form at 25 °C from the viewpoint of formulation stability. Solid forms include powdery, granular, tablet and others. In addition, the third agent may contain components which are generally contained in the hair bleaching/destaining agent and which do not inhibit the action of the above-mentioned components. For example, the components contained in the above-mentioned first and second agents may be appropriately contained within a range that does not inhibit the effect of the present invention.

[0058]

<The two-agent type hair dyeing agent>

The two-agent type hair dyeing agent are composed of, for example, a first agent containing at least an alkaline agent and an oxidizing agent, and a second agent containing at least an oxidizing agent. Hereinafter, the difference from the hair bleaching/destaining agent described above will be mainly explained.

[0059]

(The second agent of a two-agent type hair dyeing agent)

The second agent of the hair dyeing agent has, for example, the same composition as the second agent of the hair bleaching/destaining agent described above.

(The first agent of a two-agent type hair dyeing agent)

The first agent of dyeing agent contains, for example, an alkaline agent and an oxidizing dye. The examples of the alkaline agent contained in the first agent are the same as those described above in the hair bleaching/destaining agent described above, specific

examples of the alkaline agent used. The oxidative dyes are compounds that can develop color due to oxidative polymerization with oxidizing agents and are classified as dye intermediates and couplers, wherein the oxidizing dyes preferably comprise dye intermediates and couplers.

[0060]

The examples of dye intermediates include, for example, p-phenylenediamine, toluene-2,5-diamine (paratoluylenediamine), N-phenyl-p-phenylenediamine, 4,4'-diaminodiphenylamine, p-aminophenol, o-aminophenol, p-methylaminophenol, N,N-bis(2-hydroxyethyl)-p-phenylenediamine, 2-hydroxyethyl-p-phenylenediamine, o-chloro-p-phenylenediamine, 4-amino-m-cresol, 2-amino-4-hydroxyethylaminoanisole, 2,4-diaminophenol, 1-hydroxyethyl-4,5-diaminopyrazole or salt thereof and others. The specific examples of the salts include, for example, a hydrochloride salt, a sulfate salt and others. Among the specific examples of these dye intermediates, only one kind may be contained alone, or two or more kinds may be contained in combination.

[0061]

The coupler develops color by binding to a dye intermediate. The examples of couplers include, for example, resorcin, 5-amino-o-cresol, m-aminophenol, α -naphthol, 5-(2-hydroxyethylamino)-2-methylphenol, m-phenylenediamine, 2,4-diaminophenoxyethanol, toluene-3,4-diamine, 2,6-diaminopyridine, diphenylamine, N,N-diethyl-m-aminophenol, phenylmethylpyrazolone, 1,5-dihydroxynaphthalene or salt thereof and others. The specific examples of the salts include, for example, a hydrochloride salt, a sulfate salt and others. Among the specific examples of these couplers, only one kind may be contained alone, or two or more kinds may be contained in combination. The oxidizing dye is preferably composed of at least one selected from the above specific examples of the dye intermediates and at least one selected from the above specific examples of couplers, since the color tone of the hair can be varied. The first agent may suitably contain, as a dye other than the above-mentioned oxidizing dye, an oxidizing dye listed in, for example, the "Standard for quasi-drugs raw materials" (published in June 2006, Yakuji Nippo, Ltd.).

[0062]

The lower limit of the content of the oxidizing dye in the hair dyeing agent is appropriately set, and is preferably 0.01 mass % or more, more preferably 0.1 mass %

or more and still more preferably 0.5 mass % or more. When the content of the oxidizing dye is 0.01 mass % or more, the hue can be particularly improved.

[0063]

The upper limit of the content of the oxidizing dye in the hair dyeing agent is appropriately set, and is preferably 10 mass % or less, more preferably 7 mass % or less and still more preferably 5 mass % or less. When the content of the oxidizing dye is 10 mass % or less, the solubility in the solubilizing agent can be improved particularly when the solubilizing agent is used.

[0064]

The first agent may further contain components other than above as necessary, for example, components included in the first and second agents of the hair bleaching/destaining agent described above.

<The three-agent type hair dyeing agent>

The three-agent type hair dyeing agent is composed of, for example, a first agent having the same composition as the first agent of the two-agent type hair dyeing agent described above, a second agent having the same composition as the second agent of the two-agent type hair dyeing agent described above, and a third agent containing at least percarbonate. The three-agent type hair dyeing agent constructed in this manner further improves lightness because percarbonate is used in combination as an oxidizing agent.

[0065]

(The third agent of a three-agent hair dyeing agent)

The third agent of the hair dyeing agent has, for example, the same composition as the third agent of the hair bleaching/destaining agent described above. Percarbonates improve the oxidizing action and improve the lightness of the hair after hair treatment. Then, the gray hair concealment property is improved.

[0066]

Next, a method of using the composition containing an oxidizing agent of the present embodiment will be described below.

First, the hair dyeing agent or the hair bleaching/destaining agent composed of the above-mentioned plural agents is mixed, whereby mixture for a hair dyeing agent, hair bleaching/destaining agent containing an alkali agent, an oxidizing agent and others is prepared, and then applied to the hair. The mixing method is not particularly limited,

and for example, a stirring bar, a brush and others may be used to stir the mixture by hand, or a stirrer, an electric stirrer and others may be used. When the dosage form of the mixture is foamed, shaking and foaming may be performed. For the application of the hair dyeing agent or the mixture of the hair bleaching/destaining agent to the hair, it is possible to apply a known method, for example, a method in which the hair is applied to a thin gloved hand, a comb or a brush. In the case of the aerosol type, after the plurality of agents are discharged in the form of bubbles, the mixture may be applied to the hair, or the agents may be mixed on the hair while being applied to the hair.

[0067]

After a predetermined period of time has elapsed after the mixture has been applied to the hair, the step of rinsing the mixture applied to the hair with water is carried out according to conventional methods. Next, a step of washing the hair and rinsing with water is preferably performed using a shampooing composition in a conventional manner. The shampoo composition is not particularly limited as long as it is applied for cleaning hair, and a known shampoo composition can be applied. Next step, the hair is rinsed and flushed with water, preferably using a rinsing composition according to conventional methods. The composition for rinsing is not particularly limited as long as it is applied for rinsing hair, and a known composition for rinsing can be applied. As the treatment step using the rinsing composition, a known rinsing composition can be applied. Next, a step of drying the hair is performed, preferably according to conventional methods.

[0068]

According to the composition containing an oxidizing agent used as the hair dyeing agent or the hair bleaching/destaining agent of the above embodiment, the following effects can be obtained.

(1) The composition containing the oxidizing agent of the present embodiment contains a predetermined amount of component (A), (B) and (C) in addition to the oxidizing agent. Thus, the formulation stability of the composition containing the oxidizing agent is improved.

[0069]

(2) In the present embodiment, when the non-ionic surfactant is at least one selected from monoglycerol fatty acid ester and polyglycerol fatty acid ester, the formulation

stability is further improved.

[0070]

(3) In the present embodiment, when the component (C) is a higher alcohol having 20 or more carbon atoms, the formulation stability and the mixing property with the first agent are further improved.

The above embodiment may be modified as follows.

[0071]

In the above-mentioned hair dyeing agent, as a dye other than the above-mentioned oxidizing dye, for example, a direct dye listed in the "Standard for quasi-drugs raw materials" (published in June 2006, Yakuji Nippo, Ltd.) may be appropriately contained within a range that does not inhibit the effect of the present invention.

[0072]

In the composition containing the oxidizing agent of the above embodiment, the components (A) to (C) may be added in the composition containing the oxidizing agent at the time of storage, and some of the other components constituting each agent may be constructed as a separate agent to further increase the number of dosage forms. Also in such a construction, the formulation stability can be improved.

[0073]

In the hair dyeing agent or hair bleaching/destaining agent of the above embodiment, as long as the effect of the present invention is achieved, a part of each component contained in each agent constituting the above-mentioned hair dyeing agent or hair bleaching/destaining agent may be constituted as a separate agent, and the number of dosage forms may be increased.

[0074]

For example, in the first agent of the hair dyeing agent or the hair bleaching/destaining agent described above, the alkali agent and the composition other than the alkali agent may be separately formed as a separate agent. In addition, it may be constituted as a multi-agent type hair dyeing agent or hair bleaching/destaining agent in which an agent containing an oxidation aid such as persulfate salt is further combined.

[0075]

In the above embodiment, the dosage form of the mixture in which each agent is mixed is not particularly limited, specific examples of the dosage form at 25 °C, for example,

an emulsion, a liquid such as an aqueous solution or a milky lotion, a gel form, a foam form, a cream form and others.

EXPERIMENTALS

[0076]

Next, examples and comparative examples will be given to more specifically explain the above-mentioned embodiments. Incidentally, the present invention is not limited to the construction described in the example section.

A first agent of an oxidative hair dyeing agent and a second agent as a composition containing an oxidizing agent containing each component shown in Tables 1 to 3 were prepared. The numerical values in the columns showing the components in the respective tables indicate the content of the components in the columns, and the unit thereof is mass %. In the tables, "(A)" to "(C)" denote compounds corresponding to the components (A) to (C) described in the claims of the present application. On the other hand, the expression "(a) and (b)" in the table indicates a comparative compound of the components (A) and (B) described in the claims of the present application. The first agent and second agent were mixed in a mass ratio of 1:1 to prepare a liquid oxidative hair dye.

[0077]

The obtained oxidative hair dyeing agent was applied to black and white hair bundles (10 cm, Beaulax Co.,Ltd.) (hereinafter simply referred to as hair bundles) using a brush, and left at 30 °C for 30 minutes. Next, the oxidized hair dye attached to the hair bundle was rinsed with water, and then the hair bundle was treated twice with shampoos (bigen treatment shampoo for shampoo composition, Hoyu Co., Ltd.) and once with rinse (bigen treatment rinse for rinse composition, Hoyu Co., Ltd.). In addition, each of the shampoo composition and the rinse composition is washed with water for each treatment. Subsequently, the hair bundle was dried with warm air and left to stand for one day.

[0078]

The formulation stability of the second agent and the mixing property with the first agent were evaluated by the method described below. The feel and lightness of the hair bundle after the hair dyeing treatment were evaluated by the method described below.

(The formulation stability of the second agent)

The formulation stability of the second agent in liquid form was judged by visually evaluating the separation state of the second agent by five panelists after placing it in a polyethylene container and leaving it at 50 °C for one day. The scores were graded in five grades, excellent (5 points) for no separation at all, good (4 points) for slight separation, acceptable (3 points) for little separation, slightly defective (2 points) for a little separation, defective (1 point) for many separation. The average value was calculated for the scoring results of each panelist, and the average value is 4.6 points or more as "excellent: 5", 3.6 points or more and less than 4.6 points as "good: 4", 2.6 points or more and less than 3.6 points as " acceptable: 3", 1.6 points or more and less than 2.6,points as " slightly defective: 2", less than 1.6 as "defective: 1" as an evaluation result.

[0079]

(Hair lightness of Hair)

The lightness of the hair bundles after the hair dyeing treatment of each of the above examples was evaluated visually by five panelists under a standard light source according to the following criteria, thereby determining whether or not the lightness was excellent. The scores were graded in five grades, excellent (5 points), good (4 points), acceptable (3 points), slightly defective (2 points) and defective (1 point), and the average value was calculated for the scoring results of each panelist, and the average value is 4.6 points or more as "excellent: 5", 3.6 points or more and less than 4.6 points as "good: 4", 2.6 points or more and less than 3.6 points as " acceptable: 3", 1.6 points or more and less than 2.6,points as " slightly defective: 2", less than 1.6 as "defective: 1" as an evaluation result.

[0080]

(Mixing property)

The first agents and the second agents were placed in a hair-dyeing cup and mixed by hand at a speed of 170 rpm for 2 minutes using a hair-dyeing brush. The mixing property was judged by weighing 0.2 g on a glass plate, sandwiching the mixture with another glass plate, and five panelists were visually evaluating whether there was no residue by the following criteria. The scores were graded in five grades, excellent (5 points) for non-uniform portions and those without any residual melting, good (4

points) for non-uniform portions and those with slight residual melting, acceptable (3 points) for non-uniform portions or those with little residual melting, lightly defective (2 points) for non-uniform portions or those with a little residual melting, defective (1 point) for those with many residual melting. The average value was calculated for the scoring results of each panelist, and the average value is 4.6 points or more as "excellent: 5", 3.6 points or more and less than 4.6 points as "good: 4", 2.6 points or more and less than 3.6 points as " acceptable: 3", 1.6 points or more and less than 2.6,points as " slightly defective: 2", less than 1.6 as "defective: 1" as an evaluation result. The results are shown in the table below.

[0081]

(Hair feel)

The Hair feel of the hair bundles after the hair dyeing treatment of each of the above examples was evaluated whether it is moist without getting too sticky by five panelists according to the following criteria, thereby determining whether or not the Hair feel was excellent. The scores were graded in five grades, excellent (5 points), good (4 points), acceptable (3 points), slightly defective (2 points) and defective (1 point), and the average value was calculated for the scoring results of each panelist, and the average value is 4.6 points or more as "excellent: 5", 3.6 points or more and less than 4.6 points as "good: 4", 2.6 points or more and less than 3.6 points as " acceptable: 3", 1.6 points or more and less than 2.6,points as " slightly defective: 2", less than 1.6 as "defective: 1" as an evaluation result.

[0082]

[Table 1]

The second agent (ingredient name)		Examples									
		1	2	3	4	5	6	7	8	9	10
(A)	Liquid paraffin	10	-	-	5	30	10	10	10	10	10
	Squalane	-	10	-	-	-	-	-	-	-	-
	α -olefin oligomer	-	-	10	-	-	-	-	-	-	-
(B)	Lipophilic glyceryl monostearate (HLB=4)	0.2	0.2	0.2	0.2	0.2	-	-	0.2	0.1	2
	Glyceryl monomyristate (HLB=3.5)	-	-	-	-	-	0.2	-	-	-	-
	Polyglyceryl monostearate (HLB=5)	-	-	-	-	-	-	0.2	-	-	-
	POE(2)Stearyl ether (HLB=8)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-	0.5	0.5
	POE(5)Behenyl ether (HLB=7)	-	-	-	-	-	-	-	0.5	-	-
(b)	POE(20)Stearyl ether (HLB=18)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
(C)	Behenyl alcohol	3	3	3	3	3	3	3	3	3	3
	Stearyltrimethylammonium chloride (25 mass %)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Propylene glycol	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Tetrasodium hydroxyethanediphosphonate solution	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Phenoxyethanol	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Hydroxyethanediphosphonic acid solution	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Hydrogen peroxide solution (35 mass %)	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
	Purified water	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount
	Total	100	100	100	100	100	100	100	100	100	100
	Component (A) / Component (B) mass ratio	14.3	14.3	14.3	7.1	42.9	14.3	14.3	14.3	16.7	4.0
	Component (A) + Component (C) / Component (B) mass ratio	18.6	18.6	18.6	11.4	47.1	18.6	18.6	18.6	21.7	5.2
	<Evaluation>										
	Formulation stability	5	4	5	5	5	5	5	5	4	4
	Hair lightness	5	5	5	4	5	5	5	5	5	5
	Mixing property	5	5	5	5	4	5	5	5	5	5
	Hair feel	5	5	5	5	4	5	5	5	5	5

[0083]

[Table 2]

The second agent (ingredient name)		Examples					Reference example		Comparative example		
		11	12	13	14	15	1	2	1	2	3
(A)	Liquid paraffin	10	10	10	10	10	-	-	10	10	10
(a)	Petrolatum	-	-	-	-	-	10	-	-	-	-
(B)	Lipophilic glyceryl monostearate (HLB=4)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-	-	0.2
	POE(2)Stearyl ether (HLB=8)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-	-	0.5
(b)	POE(20)Stearyl ether (HLB=18)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-	0.5
(C)	Behenyl alcohol	-	-	1.5	1.5	10	3	3	3	3	-
	Arachidyl alcohol	3	-	-	-	-	-	-	-	-	-
	Stearyl alcohol	-	3	1.5	-	-	-	-	-	-	-
	Stearyltrimethylammonium chloride (25 mass %)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Propylene glycol	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Tetrasodium hydroxyethanediphosphonate solution	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Phenoxyethanol	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Hydroxyethanediphosphonic acid solution	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Hydrogen peroxide solution (35 mass %)	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
	Purified water	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount	Remaining amount
	Total	100	100	100	100	100	100	100	100	100	100
	Component (A) / Component (B) mass ratio	14.3	14.3	14.3	14.3	14.3	-	-	-	-	14.3
	Component (A) + Component (C) / Component (B) mass ratio	18.6	18.6	18.6	16.4	28.6	4.3	4.3	-	-	14.3
	<Evaluation>										
	Formulation stability	5	3	3	3	4	4	4	2	1	1
	Hair lightness	5	5	5	5	5	5	2	5	5	5
	Mixing property	4	4	5	5	3	2	5	5	5	5
	Hair feel	5	5	5	5	5	2	2	5	5	5

[0084]

[Table 3]

The first agent (ingredient name)	
Resorcin	0.5
2,4-Dihydroxybenzoic acid	0.33
p-Phenylenediamine	0.4
p-Aminophenol	0.2
Paratoluylenediamine	0.2
α -Naphthol	0.2
m-Aminophenol	0.2
5-Amino-o-cresol	0.2
28 mass % ammonia solution	10
70% mass % monoethanolamine	5
Ammonium bicarbonate	2
Cetanol	1
Stearyl alcohol	10
2-Octyldodecanol	2
Petrolatum	2
POE(4)stearyl ether	2
POE(20)cetyl ether	2
POE(50)oleyl ether	2
Alkyltrimethylammonium chloride	2
Polyethylene glycol 400	10
Shear butter	1
Jojoba oil	1
Olive oil	1
Hydroxyethylcellulose	1
Anhydrous sodium sulfate	0.5
Taurine	1
L-theanine	1
Highly polymerized methylpolysiloxane	1
Polydimethylmethylenepiperidinium chloride solution (Polydimethyldimethylenepyrrolidinium chloride solution)	1
Trisodium hydroxyethylethylenediaminetriacetate solution (40 mass %)	1
Ascorbic acid	0.5
Purified water	Appropriate amount
Total	100

As shown in Tables 1 and 2, it was confirmed that the results of each example were more than possible for each evaluation item. As shown in Table 2, in comparative examples 1 and 2 which do not contain the component (B), it was confirmed that the evaluation of the formulation stability was inferior to each example. In comparative example 3 containing no component (C), it was confirmed that the evaluation of the formulation stability was inferior to each example. It is confirmed that in reference example 1 in which petrolatum is used instead of the component (A), excellent hair feeling is not obtained. Similarly, it is confirmed that the reference example 2 containing no component (A) does not provide excellent lightness and feel.

CLAIMS

[Claim 1]

A composition containing an oxidizing agent used as a hair dyeing agent or hair bleaching/destaining agent in admixture with an agent containing an alkaline agent, wherein the composition containing the oxidizing agent contains (A) 4 mass % or more of a hydrocarbon in liquid form at 25 °C, (B) a non-ionic surfactant having an HLB of 8 or less, and (C) a higher alcohol.

[Claim 2]

The composition containing the oxidizing agent according to claim 1, wherein the non-ionic surfactant is at least one selected from monoglycerol fatty acid esters and polyglycerol fatty acid esters.

[Claim 3]

The composition containing the oxidizing agent according to claim 1 or 2, wherein the component (C) is a higher alcohol having 20 or more carbon atoms.

[Claim 4]

The composition containing the oxidizing agent according to any one of claims 1 to 3, wherein the total mass ratio of the content of the component (A) and the content of the component (C) to the content of the component (B) is 3 to 50.

[Claim 5]

A method for using the composition containing the oxidizing agent according to any one of claims 1 to 4, comprising a step of mixing the composition containing the oxidizing agent with an agent containing an alkaline agent to prepare a hair dyeing agent or a hair bleaching/destaining agent.