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(54) Title: HAIR CARE COMPOSITIONS

(57) Abstract: The present invention concerns aqueous hair care compositions comprising an effective amount of argan oil. The hair care compositions according to the present invention can be in the form of a shampoo preparation or in the form of a hair conditioner. If the composition is a shampoo preparation, argan oil is preferably present in an amount 10 ranging from 0.05 to 0.15 wt.-%. If the composition is a hair conditioner, argan oil is preferably present in an amount ranging from 0.2 to 0.75 wt.-%.



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Hair Care Compositions

The present invention concerns aqueous hair care compositions comprising an effective amount of argan oil. The hair care compositions according to the present invention can be in the form of a shampoo preparation or in the form of a hair conditioner. If the composition is a shampoo preparation, argan oil is preferably present in an amount ranging from 0.05 to 0.15 wt.-%. If the composition is a hair conditioner, argan oil is preferably present in an amount ranging from 0.2 to 0.75 wt.-%.

Hair care compositions for hair have been known for ages. Various types of hair care composition are available on the market and new ones are being introduced almost every day. Although this extremely developed hair care market, there is still need for improvements. Among important properties of hair, volume, body and shine are the ones very often addresses. Especially long lasting shine, volume and body are wished as they increase attractiveness of hair and change its perception. Shine enhancing products as well as volume and body giving ones are well known on the market either in leave-in or rinse off applications.

Another important factor affecting the appearance of hair is hair damage e.g. caused by chemical treatments such as dying, bleaching or permanent waving, every day handling such as brushing, combing or blow drying as well as customary pollution (sebum, dust, etc.). As a rule damaged hair is less shiny and exhibits less volume and body compared to healthy hair because of an impaired and irregular hair surface. Therefore, it is important to use specific hair care compositions in order to diminish or, if this is not possible, slow down hair damage. However, hair care compositions designed for damaged hair, especially fine hair, often cause loss of volume and body although shiny appearance is observed to a certain extend, which, however, is still also often not yet satisfying.

5 Many ingredients such as particular oils or silicone derivatives are known to impart shine to hair, however, they tend to leave the hair greasy and thus often cause loss of volume and body.

Thus, the objective of the current invention is to provide optimized aqueous hair care
10 compositions which impart optimal shine to the hair without leaving it greasy and at the same time give hair volume and body. It has also been observed that by the use of the compositions of the present invention hair shine as well as hair volume and body lasts longer. Furthermore, other properties of hair are maintained or also improved such as elasticity, manageability, smoothness and softness.

15 Surprisingly it has been found, that the above mentioned requirements are achieved by aqueous hair care compositions comprising argan oil in distinct amounts.

Thus, the invention relates to an aqueous hair care composition comprising argan oil in
20 an amount of 0.05 to 0.75 wt.-% based on the total weight of the composition.

In one particular embodiment the invention relates to an aqueous hair care composition in the form of a shampoo preparation comprising argan oil in an amount ranging from 0.05 to 0.15 wt.-% and in particular in an amount of about 0.1 wt.-%, based on the total
25 weight of the shampoo preparation.

In another particular embodiment, the invention relates to an aqueous hair care composition in the form of a hair conditioner comprising argan oil in an amount ranging from 0.2 to 0.75 wt.-% and in particular in an amount of about 0.5 wt.-%, based on the
30 total weight of the hair conditioner.

The term shampoo preparation as used according to the present invention relates to hair care products used for cleansing of hair, i.e. the removal of oils, dirt, skin particles, dandruff, environmental pollutants and other contaminant particles that gradually build
35 up in hair. The term shampoo preparation also encompasses conditioning shampoos.

5 The shampoo preparations according to the invention are applied to the hair and then rinsed away with water and are well known to a person skilled in the art.

The term hair conditioner refers to hair care products used after washing hair with cleansing compositions such as a shampoo preparation and which leave the hair more
10 soft and pliable, facilitates combing and impart other positive attributes to the hair. Such hair conditioners can be leave in or rinse off products and are well known to a person skilled in the art.

Argan oil (INCI Argania Spinosa Kernel Oil, CAS 299184-75-1) is an oil produced from
15 the kernels of the endemic argan tree. In a particular embodiment, cold pressed argan oil is used in the compositions according to the invention. In a further particular embodiment, the argan kernels are not roasted before pressing. In a particular preferred embodiment, Argan oil from DSM Nutritional Products Ltd. is used.

20 It has furthermore be found that particular advantageous compositions can be obtained when the aqueous hair care compositions according to the present invention furthermore comprise a cationic aqueous solution polymer based on diallyl dimethyl ammonium chloride (DADMAC) such as homopolymers built up from DADMAC monomers only as well as copolymer built up from DADMAC monomers and acrylic monomers such as
25 acrylic acid or acrylamide. Particularly preferred solution polymers to be used in the aqueous hair care compositions according to the present invention are polyquaternium-6 (CAS 26062-79-3), polyquaternium-22 (CAS 53694-17-0) and/ or polyquaternium-7 (CAS 26590-05-6). Such compositions next to imparting even better shine also give excellent combability in particular if the composition is a hair conditioner. The cationic
30 aqueous solution polymer is preferably present in an amount of at least 0.01 wt.-%, such as from 0.02 to 5 wt.-%, preferably from 0.01 to 1 wt.-%, and more preferably from 0.1 to 0.5 wt.-%, based on the total weight of the inventive composition.

Particular advantageous shampoo preparations can be obtained when argan oil is
35 combined with PPG-2 Hydroxyethyl cocamide (CAS 000000-48-4 e.g. available at Croda as Promidium™ CO) and/ or Panthenol (CAS 81-13-0 e.g. available at DSM Nutritional

5 Products LTD as D-Panthenol 75 L). Thus, the invention also relates to shampoo preparations according to the present invention comprising next to argan oil PPG-2 Hydroxyethyl cocamid and/ or panthenol. If present in the shampoo formulation, PPG-2 hydroxyethyl cocamid is preferably used in an amount ranging from 2 - 5 wt.-% such as in particular in an amount of about 3.5 wt.-% and panthenol is used in an amount ranging from 0.1 – 0.5 wt.-% such as particularly in an amount of about 0.3 wt.-% based on the total weight of the shampoo preparation. Preferably, the shampoo preparations according to the present invention comprise argan oil, PPG-2 hydroxyethyl cocamid and panthenol.

15 Particular advantageous hair conditioners can be obtained when argan oil is combined with lactic acid (CAS 79-33-4) and/ or panthenol (CAS 81-13-0 e.g. available at DSM Nutritional Products LTD as D-Panthenol 75 L). Thus, the invention in a further embodiment also relates to hair conditioners according to the present invention comprising next to argan oil lactic acid and/ or panthenol. If present in the hair conditioner, lactic acid is preferably used in an amount ranging from 2 - 5 wt.-% such as in particular in an amount of about 3.5 wt.-% and panthenol is used in an amount ranging from 0.1 – 0.5 wt.-% such as particularly in an amount of about 0.3 wt.-% based on the total weight of the hair conditioner. Preferably, the hair conditioners according to the present invention comprise argan oil, lactic acid and panthenol.

25

In another embodiment, the invention is concerned with a method of imparting shine to hair, said method comprising the step of applying an aqueous hair care composition according to the present invention to hair.

30 The aqueous hair care compositions according to the invention can contain further ingredients to enhance the performance and/ or consumer acceptability such as preservatives, antioxidants, fatty substances/ oils, silicones, thickeners, softeners, emulsifiers, light-screening agents, antifoaming agents, moisturizers, fragrances, co-surfactants, fillers, sequestering agents, cationic-, nonionic- or amphoteric polymers or mixtures thereof, acidifying or basifying agents, dyes, colorants, pigments or nanopigments, pearlizers or opacifiers, organic or inorganic particles, viscosity modifiers,

35

5 and natural hair nutrients such as botanicals, fruit extracts, sugar derivatives and/ or amino acids or any other ingredients usually formulated into aqueous hair care compositions such as shampoo preparations respectively hair conditioners. The necessary amounts of the adjuvants and additives can, based on the desired product, easily be chosen by a skilled artisan in this field and will be illustrated in the examples,
10 without being limited hereto.

In a particular embodiment, the compositions of the present invention comprise further hair-conditioning agents. Such conditioning agents can be selected from oily substances, non-ionic substances, cationic amphophilic ingredients, cationic polymers or
15 mixtures thereof.

Suitable cationic polymers for further enhancing conditioning performance may be homopolymers which are cationically substituted or may be formed from two or more types of monomers. The weight average molecular weight (M_w) of the polymers will
20 generally be between 100 000 and 2 million Daltons. Suitable cationic polymers include, for example, copolymers of vinyl monomers having cationic amine or quaternary ammonium functionalities with water soluble spacer monomers such as (meth) acrylamide, alkyl and dialkyl (meth) acrylamides, alkyl (meth) acrylate, vinyl caprolactone and vinyl pyrrolidine. The alkyl and dialkyl substituted monomers preferably have C_1 - C_7
25 alkyl groups, more preferably C_{1-3} alkyl groups. Other suitable spacers include vinyl esters, vinyl alcohol, maleic anhydride, propylene glycol and ethylene glycol.

Cationic amines can be primary, secondary or tertiary amines, depending upon the particular species and the pH of the composition. In general secondary and tertiary
30 amines, especially tertiary, are preferred.

Amine substituted vinyl monomers and amines can be polymerized in the amine form and then converted to ammonium by quaternization.

5 The cationic polymers can comprise mixtures of monomer units derived from amine- and/or quaternary ammonium-substituted monomer and/or compatible spacer monomers.

Suitable cationic polymers include, for example:

- 10 -mineral acid salts of amino-alkyl esters of homo-and co-polymers of unsaturated carboxylic acids having from 3 to 5 carbon atoms, (as described in U.S. Patent 4,009,256)
- cationic polyacrylamides (as described in WO95/22311).

Other cationic polymers that can be used include cationic polysaccharide polymers, such as cationic cellulose derivatives, cationic starch derivatives, and cationic guar gum derivatives.

Another type of cationic cellulose includes the polymeric quaternary ammonium salts of hydroxyethyl cellulose reacted with trimethyl or lauryl dimethyl ammonium-substituted epoxide, referred to in the industry (CTFA) as Polyquaternium 10 and Polyquaternium 24 respectively. These materials are available from the Amerchol Corporation, for instance under the trade name Ucare Polymer JR or Ucare Polymer LM.

Other suitable cationic polysaccharide polymers include quaternary nitrogen-containing cellulose ethers (e.g. as described in U.S. Patent 3,962,418), and copolymers of etherified cellulose and starch (e.g. as described in U.S. Patent 3,958,581). A particularly suitable type of cationic polysaccharide polymer that can be used is a cationic guar gum derivative, such as guar hydroxypropyltrimethylammonium chloride or Hydroxypropyl guar hydroxypropyltrimethylammonium chloride (commercially available from Rhodia in their JAGUAR trademark series). Examples of such materials are JAGUAR C13S, JAGUAR C14S, JAGUAR C17; JAGUAR C162 and JAGUAR Excel.

Mixtures of any of the above cationic polymers may be used.

35 The cationic polymer(s) will generally be present in the compositions of the present invention in an amount ranging from 0.01 to 5%, preferably from 0.05 to 1%, more

5 preferably from 0.08 to 0.5% by total weight of cationic polymer based on the total weight of the composition.

The compositions according to the present invention, i.e. the shampoo preparations as well as the hair conditioners may comprise further conditioning agents to further optimize
10 wet and dry conditioning benefits.

Particularly preferred further conditioning agents are silicone emulsions. Suitable silicone emulsions include those formed from silicones such as polydiorganosiloxanes, in particular polydimethylsiloxanes which have the CTFA designation dimethicone, polydimethyl siloxanes having hydroxyl end groups which have the CTFA designation
15 dimethiconol, and amino-functional polydimethyl siloxanes which have the CTFA designation amodimethicone. Suitable silicone emulsions for use in compositions of the invention are available from suppliers of silicones such as Dow Corning and GE Silicones. The use of such pre-formed silicone emulsions is preferred for ease of
20 processing and control of silicone particle size. Such pre-formed silicone emulsions will typically additionally comprise a suitable emulsifier such as an anionic or nonionic emulsifier, or mixture thereof, and may be prepared by a chemical emulsification process such as emulsion polymerisation, or by mechanical emulsification using a high shear mixer. Preformed silicone emulsions having a Sauter mean droplet diameter ($D_{3,2}$) of
25 less than 0.15 micrometers are generally termed microemulsions. Examples of suitable pre-formed silicone emulsions include emulsions DC2-1766, DC2-1784, DC-1785, DC-1786, DC-1788 and microemulsions DC2-1865 and DC2-1870, all available from Dow Corning. These are all emulsions/microemulsions of dimethiconol. Also suitable are amodimethicone emulsions such as DC939 (from Dow Corning) and SME253 (from GE
30 Silicones). Also suitable are silicone emulsions in which certain types of surface active block copolymers of a high molecular weight have been blended with the silicone emulsion droplets, as described for example in WO03/094874.

Silicone will generally be present in a composition of the invention at levels ranging from
35 0.05 to 10 wt.-%, preferably 0.05 to 5wt.-%, more preferably from 0.5 to 2wt.-% by total weight of silicone based on the total weight of the composition.

5

The compositions according to the invention may further contain UV-filter substances. Examples of UV-filter substances suitable for the incorporation into the compositions according to the invention include benzophenones such as e.g. benzophenones-4 or benzophenones-3, acrylates such as 2-ethylhexyl 2-cyano-3,3-diphenylacrylate (octocrylene, PARSOL[®] 340), cinnamate derivatives such as ethylhexyl methoxycinnamate (PARSOL[®] MCX), benzalmalonate derivatives bond to siloxanes such as e.g. polysilicones-15 (PARSOL[®] SLX), salicylate derivatives such as isopropylbenzyl salicylate, benzyl salicylate, butyl salicylate, ethylhexyl salicylate (PARSOL[®] EHS, Neo Heliopan OS), isooctyl salicylate or homomenthyl salicylate (homosalate, PARSOL[®] HMS, Neo Heliopan HMS), benzotriazole derivatives such as sodium benzotriazolyl butylphenol sulfonate, imidazole derivatives such as e.g. 2-phenyl benzimidazole sulfonic acid and its salts (PARSOL[®] HS), dibenzoylmethane derivatives such as (avobenzene, Parsol[®] 1789) without being limited thereto.

20 The shampoo preparations according to the present invention preferably include co-surfactants, to help impart aesthetic, physical or cleansing properties to the compositions.

Examples of suitable co-surfactants are nonionic surfactants, which can be included in an amount ranging from 0.5 to 8 wt.-%, preferably from 2 to wt.-5% based on the total weight of the preparation. For example, representative nonionic surfactants that can be included into shampoo preparations according to the invention include condensation products of aliphatic (C₈ – C₁₈) primary or secondary linear or branched chain alcohols with alkylene oxides, usually ethylene oxide and generally having from 6 to 30 ethylene oxide groups. Other representative nonionic surfactants include mono- or di-alkyl alkanolamides such as e.g. coco mono- or di- ethanolamide and coco mono-isopropanolamide. Further nonionic surfactants which can be included in shampoo preparations of the invention are the alkyl polyglycosides (APGs). Typically, the APG is one which comprises an alkyl group connected (optionally via a bridging group) to a block of one or more glycosyl groups such as e.g. Oramix NS 10 ex Seppic; Plantacare 818UP, Plantacare 1200 and Plantacare 2000 ex Cognis.

5

Another example of a co-surfactant is an amphoteric or zwitterionic surfactant, which can be included in an amount ranging from 0.5 to about 8 wt.-%, preferably from 1 to 4 wt.-% based on the total weight of the shampoo preparation. Examples of amphoteric or zwitterionic surfactants include alkyl amine oxides, alkyl betaines, alkyl amidopropyl betaines, alkyl sulphobetaines (sultaines), alkyl glycinate, alkyl carboxyglycinates, alkyl amphotacetates, alkyl amphopropionates, alkylamphoglycinates, alkyl amidopropyl hydroxysultaines, acyl taurates and acyl glutamates, wherein the alkyl and acyl groups have from 8 to 19 carbon atoms. Typical amphoteric and zwitterionic surfactants for use in shampoo preparations according to the invention include lauryl amine oxide, cocodimethyl sulphopropyl betaine, lauryl betaine, cocamidopropyl betaine (CAPB), sodium cocoamphoacetate and disodium cocoamphodiacetate. A particularly preferred amphoteric or zwitterionic surfactant to be used in the shampoo preparations of the present invention is cocamidopropyl betaine.

20 Mixtures of any of the foregoing amphoteric or zwitterionic surfactants may also be suitable. Preferred mixtures are those of cocamidopropyl betaine with further amphoteric or zwitterionic surfactants as described above such as in particular with sodium cocoamphoacetate.

25 The total amount of surfactant (including any co-surfactant, and/or any emulsifier) in a shampoo preparation according to invention is generally from 1 to 50%, preferably from 2 to 40%, more preferably from 5 to 25%, in particular from 9 to 15 wt.-% based on the total weight of the shampoo preparation.

30 Preferably a shampoo preparation of the invention further comprises a suspending agent. Suitable suspending agents are selected from polyacrylic acids, cross-linked polymers of acrylic acid, copolymers of acrylic acid with a hydrophobic monomer, copolymers of carboxylic acid- containing monomers and acrylic esters, cross-linked copolymers of acrylic acid and acrylate esters, heteropolysaccharide gums and
35 crystalline long chain acyl derivatives. The long chain acyl derivative is desirably selected from ethylene glycol stearate, alkanolamides of fatty acids having from 16 to 22

5 carbon atoms and mixtures thereof. Ethylene glycol distearate and polyethylene glycol 3 distearate are preferred long chain acyl derivatives, since these impart pearlescence to the composition. Polyacrylic acid is available commercially as Carbopol 420, Carbopol 488 or Carbopol 493. Polymers of acrylic acid cross-linked with a polyfunctional agent may also be used; they are available commercially as Carbopol 910, Carbopol 934,
10 Carbopol 941, Carbopol 980 and Carbopol Ultrez 10 Polymer. Examples of suitable copolymers of a carboxylic acid containing monomer and acrylic acid esters are Carbopol 1342, Carbopol Ultrez 20 or Carbopol Ultrez 21, Pemulen TR1 or Pemulen TR2. All Carbopol or Pemulen (trademark) materials are available from Noveon Consumer Specialities.

15

A suitable heteropolysaccharide gum is xanthan gum, for example Keltrol-types or Kelzan-types from Kelco, Vanzan NF from RT Vanderbilt Inc. or Rhodicare-types from Rhodia. .

20 Mixtures of any of the above suspending agents may be used. Preferred is a mixture of cross-linked polymer of acrylic acid and crystalline long chain acyl derivative.

The suspending agent(s) will generally be present in a shampoo preparation of the invention at levels of from 0.1 to 10%, preferably from 0.5 to 6%, more preferably from
25 0.9 to 4% by total weight of suspending agent based on the total weight of the composition.

The shampoo preparations according to the invention may further contain anti dandruff agents. Examples of anti-dandruff agents which may be used are cimbazole, octopirox
30 and zinc pyrithione.

The following examples are provided to further illustrate the invention. These examples are illustrative only and are not intended to limit the scope of the invention in any way.

35

5 1. Shampoo preparation

Phase	INCI Name	SH1	SH2	SH3	SH4	SH6 (Ref.)
		wt.-%	wt.-%	wt.-%	wt.-%	wt.-%
A	Aqua	Ad 100	Ad 100	Ad 100	Ad 100	Ad 100
	Polyquaternium-10	0.30	0.30	0.30	0.30	0.30
B	Sodium Laureth sulfate	44.00	44.00	44.00	44.00	44.00
C	Argania Spinosa Kernel Oil	0.10	0.30	-	-	-
	Mineral Oil	-	-	0.01	0.30	-
	PEG-18 Glyceryl Oleate/ Cocoate	2.00	2.00	2.00	2.00	2.00
D	PPG-2 Hydroxyethyl Cocamide	3.50	3.50	3.50	3.50	3.50
	Sodium Xylenesulfonate	1.20	1.20	1.20	1.20	1.20
E	Sodium Citrate	0.25	0.25	0.25	0.25	0.25
	Citric acid	0.01	0.01	0.01	0.01	0.01
	Panthenol	0.34	0.34	0.34	0.34	0.34
	Panthenyl ethyl ether	0.25	0.25	0.25	0.25	0.25
	Perfume (PÖ Color express 351580)	0.5	0.50	0.50	0.50	0.50
	Methylisothiazolinone	0.1	0.10	0.10	0.10	0.10
	Sodium benzoate	0.25	0.25	0.25	0.25	0.25
F	Sodium chloride	1.50	1.50	1.50	1.50	1.50

5 **2. Hair conditioner**

Phase	INCI Name	CO1	CO2	CO3	CO4	CO6 (Ref.)
		wt.-%	wt.-%	wt.-%	wt.-%	wt.-%
A	Aqua	Ad 100	Ad 100	Ad 100	Ad 100	Ad 100
	Stearamidopropyl Dimethylamine	2.20	2.20	2.20	2.20	2.20
	Stearyl alcohol	2.80	2.80	2.80	2.80	2.80
	Cetyl alcohol	2.40	2.40	2.40	2.40	2.40
	Lactic acid	0.60	0.60	0.60	0.60	0.60
B	Argania Spinosa Kernel Oil	0.50	1.00	-		-
	Mineral Oil	-	-	0.50	1.00	-
C	Perfume (PÖ Color express 351580)	0.60	0.60	0.60	0.60	0.60
	Panthenyl ethyl ether	0.25	0.25	0.25	0.25	0.25
	Panthenol	0.34	0.34	0.34	0.34	0.34
	Methylisothiazolinone	0.1	0.10	0.10	0.10	0.10

In addition to the samples listed above two market benchmarks (MB) SH5 (Pantene Pro V Ice Shine Shampoo) and CO5 (Pantene Pro V Ice Shine Conditioner) have been tested for comparative reasons.

10

Test description evaluation

For the test European hair switches of $2\text{g} \pm 0.3\text{g}$ and 21 cm length have been used (Color number 4/0, 'mittelbraun, Art. No. 826530). The tresses were pre-treated in a standardized way to obtain switches of poor gloss.

- 15 After conditioning the switches overnight ($22^{\circ}\text{C} \pm 1^{\circ}\text{C}$ and $55\% \pm 5\%$ rel humidity), 0.5 ml of product (shampoo preparation/ hair conditioner) per switch was applied twice, foamed for 1 min and kept that way for further two minutes. After each foaming phase the test product was rinsed off with water for 1 min. Afterwards the hair switches were dried with a hair dryer.
- 20 The dry switches were evaluated and ranked by 10 experts who compared each singular switch group treated with product 'X' with the other 5 switch groups treated with the respective other compositions.

5

They rated the samples as

- Sample 'X' glossier (positive rating)
- No difference
- Comparison sample glossier (negative rating)

10 All results have been analyzed via summation of all positive ratings of the pair comparison within the tested group followed by a ranking as shown in table 1 & 2.

Table 1: Results overall ranking Shampoo preparation

	SH1	SH2	SH3	SH4	SH5 (MB)	SH6 (Ref.)	Sum	Ranking
SH1	–	9	7	7	9	8	40	1
SH2	9	–	7	4	6	9	35	3
SH3	7	7	–	7	8	6	35	3
SH4	7	4	7	–	8	4	30	5
SH5 (MB)	9	6	8	8	–	6	37	2
SH6 (Ref.)	8	9	6	4	1	–	28	6

15 As can be retrieved from table 1, SH 1 resulted in the best scoring and delivered more shine than a corresponding shampoo containing instead of argan oil the equivalent amount of mineral oil (paraffin oil). Furthermore, lower level of argan oil results in a significantly better shine.

20 Table 2: Results overall ranking hair conditioner

	CO1	CO2	CO3	CO4	CO5 (MB)	CO6 (Ref.)	Sum	Ranking
CO1	–	5	9	8	6	9	37	1
CO2	5	–	5	8	7	4	29	5
CO3	9	4	–	3	5	5	26	6
CO4	8	8	6	–	7	5	36	2
CO5 (MB)	6	7	5	7	–	7	32	3
CO6 (Ref.)	9	4	5	5	8	–	31	4

- 5 CO 1 resulted in the best scoring, and delivered more shine than a corresponding conditioner containing instead of argan oil the equivalent amount of mineral oil (paraffin oil). Furthermore, lower level of argan oil resulted in a significantly better shine.

* * *

5 Claims

1. Aqueous hair care composition comprising argan oil in an amount of 0.05 to 0.75 wt.-% based on the total weight of the composition-
2. The composition according to claim 1, characterized in that the composition is a
10 shampoo preparation comprising argan oil in an amount ranging from 0.05 to 0.15 wt.-%, in particular in an amount of about 0.1 wt.-%, based on the total weight of the shampoo preparation.
3. The composition according to claim 2, characterized in that the composition
15 further comprises PPG-2 Hydroxyethyl cocamid and/ or panthenol.
4. The composition according to claim 3, characterized in that the composition
comprises PPG-2 hydroxyethyl cocamid in an amount ranging from 2 - 5 wt.-%
and panthenol in an amount ranging from 0.1 – 0.5 wt.-%, based on the total
20 weight of the shampoo preparation.
5. The composition according to claim 3, characterized in that the composition
comprises PPG-2 hydroxyethyl cocamid in an amount of about 3.5 wt.-% and
panthenol in an amount of about 0.3 wt.-% based on the total weight of the
25 shampoo preparation.
6. The composition according to claim 1, characterized in that the composition is a
hair conditioner comprising argan oil in an amount ranging from 0.2 to
0.75 wt.-%, in particular in an amount of about 0.5 wt.-% based on the total
30 weight of the formulation.
7. The composition according to claim 6, characterized in that the composition
further comprises lactic acid and/ or panthenol.
- 35 8. The composition according to claim 7, characterized in that the composition
comprises lactic acid in an amount ranging from 2 - 5 wt.-% such as in particular

- 5 in an amount of about 3.5 wt.-% and panthenol in an amount ranging from 0.1 –
0.5 wt.-% such as particularly in an amount of about 0.3 wt.-% based on the total
weight of the hair conditioner.
9. The composition according to claim 7, characterized in that the composition
10 comprises lactic acid in an amount of about 3.5 wt.-% and panthenol in an
amount of about 0.3 wt.-%, based on the total weight of the hair conditioner.
10. The composition according to any one of claims 1 to 9 further comprising a
cationic aqueous solution polymer based on diallyl dimethyl ammonium chloride.
- 15 11. The composition according to claim 10, characterized in that the cationic
aqueous solution polymer is selected from the group of polyquaternium-6,
polyquaternium-22 and polyquaternium-7 as well as mixtures thereof.
- 20 12. A method of imparting shine to hair, said method comprising the step of applying
a composition according to any one of claim 1 to 11 to hair.

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