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(71) **Applicant** (for AE, AG, AU, BB, BH, BN, BW, BZ, CA, CY, EG, GB, GD, GH, GM, IE, IL, KE, KN, LC, LK, LS, MT, MW, MY, NA, NG, NZ, OM, PG, QA, RW, SC, SD, SG, SL, SZ, TT, TZ, UG, VC, ZA, ZM, ZW only): **UNILEVER PLC** [GB/GB]; a company registered in England and Wales under company no. 41424 of Unilever House, 100 Victoria Embankment, London Greater London EC4Y 0DY (GB).

(71) **Applicant** (for all designated States except AE, AG, AU, BB, BH, BN, BW, BZ, CA, CY, EG, GB, GD, GH, GM, IE, IL, IN, KE, KN, LC, LK, LS, MT, MW, MY, NA, NG, NZ, OM, PG, QA, RW, SC, SD, SG, SL, SZ, TT, TZ, UG, US, VC, ZA, ZM, ZW): **UNILEVER N.V.** [NL/NL]; Weena 455, NL-3013 AL Rotterdam (NL).

(71) **Applicant** (for IN only): **HINDUSTAN UNILEVER LIMITED** [IN/IN]; Unilever House, B.D. Sawant Marg Chakala Andheri (East), Mumbai, Maharashtra 400 099 (IN).

(71) **Applicant** (for US only): **CONOPCO, INC., D/B/A UNILEVER** [US/US]; 800 Sylvan Avenue, AG West, S. Wing, Englewood Cliffs, New Jersey 07632 (US).

(72) **Inventors**: **EKANI NKODO, Axel, Herve**; Unilever (China) Investing Company Ltd, 66 LinXin Road, Linkong Economic Development Zone, Chagning District, Shanghai 200335 (CN). **JOINSON, Leslie, Joseph, Luke**; Unilever R&D Port Sunlight, Quarry Road East, Bebington, Wirral

Merseyside CH63 3JW (GB). **MIDGLEY, Ian, Stuart**; 24 Crofters Lea, Yeadon, Leeds Yorkshire LS19 7WE (GB).

(74) **Agent**: **NEWBOULD, Frazer, Anthony**; Unilever PLC, Unilever Patent Group, Colworth House, Sharnbrook, Bedford Bedfordshire MK44 1LQ (GB).

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(54) **Title**: HAIRSPRAY COMPOSITION

(57) **Abstract**: A hairspray composition comprising from about 0.01 to about 25% wt. styling base and from about 75 to about 99.9% wt. propellant, wherein from about 20 to about 80% wt. of the propellant comprises n-hydrocarbon.



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COMPOSITION

The present invention relates to an improved hairspray composition.

5 Despite the prior art there remains a need for improved hairspray compositions.

Accordingly, there is provided a hairspray composition comprising from about 0.01 to about 25% wt. styling base and from about 75 to about 99.9% wt. propellant, wherein from about 20 to about 80% wt. of the propellant comprises n-
10 hydrocarbon.

The hairspray of the invention is stable and delivers a homogeneous mixture of product to the user's hair. Further, the propellant is tailored to solubilise the styling base sufficiently to allow uniform dispensing without clogging the actuator.
15

Preferably, the n-hydrocarbon comprises from 4 to 8 carbons, more preferably from 4 to 6 and most preferably is n-pentane.

Preferably, the composition comprises oil selected from mineral oil, vegetable oil
20 and silicone oil. Preferably, the oil is present at from 0.001 to 2% wt. of the composition. Most preferably, the composition comprises from 0.1 to 1% wt. sunflower seed oil.

Preferably, from about 30 to about 70% wt of the propellant, more preferably from
25 about 40 to about 60% wt comprises n-hydrocarbon.

The composition also comprises a styling base. The styling base comprises from about 5 to about 25% wt. of the composition. Preferably, the styling base comprises wax, more preferably a microcrystalline wax. Preferably, the
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composition comprises from 0.1 to 7% wt. of the total composition wax. The styling base may also comprise styling resin or styling polymer.

- 5 Suitable styling resins include polyvinylpyrrolidone and derivatives thereof.

The propellant may also comprise a further component. Commonly used liquefied gas propellants are trichlorofluoromethane, dichlorodifluoromethane, butane and propane, and mixtures thereof.

10

Preferably, the styling base also comprises a solvent thereof. Preferably the solvent is an isoalkane comprising from 8 to 16 carbons, preferably from 10 to 14 carbons and most preferably is isododecane.

- 15 The composition of the invention is packaged in a standard aerosol package which is actuated by the user by releasing a valve resulting in styling base suspended by the propellant being ejected from the package and onto the hair.

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EXAMPLES

The following is a hairspray composition. It is made by usual processes.

Ingredient	%wt.
<i>Styling Base</i>	
Isododecane	12.2
Microcrystalline wax	3.3
Sunflower Seed Oil	0.5
Fragrance	1
<i>Propellant</i>	
Dymel® 152a	41
n-pentane	42

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Replacing the n-pentane with standard propellant components such as volatile organic components results in an insufficiently suspended composition which clogs the actuator.

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CLAIMS

1. A hairspray composition comprising from about 0.01 to about 25% wt. styling
base and from about 75 to about 99.9% wt. propellant, wherein from about
5 20 to about 80% wt. of the propellant comprises n-hydrocarbon.
2. A hairspray composition according to claim 1 wherein the n-hydrocarbon
comprises from 4 to 8 carbons, more preferably from 4 to 6 and most
preferable is n-pentane.
10
3. A hairspray composition according to claim 1 or 2 wherein the styling base
comprises from 0.1 to 7% wt. of the composition wax, more preferably a
microcrystalline wax.
- 15 4. A hairspray composition according to any preceding claim wherein the
composition comprises oil selected from mineral oil, vegetable oil and
silicone oil.
5. A hairspray composition according to any preceding claim wherein the oil is
20 present at from 0.001 to 2% wt. of the composition.
6. A hairspray composition according to any preceding claim comprising from
0.1 to 1% wt. sunflower seed oil.

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INTERNATIONAL SEARCH REPORT

International application No

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According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A61K A61Q		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal , BIOSIS, CHEM ABS Data, EMBASE, FSTA, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
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X	US 2003/118516 AI (EMMERLING WIN FRI ED [DE] ET AL) 26 June 2003 (2003-06-26) paragraphs [0007] , [0014] , [0017] , [0035] , [0038] ; exampl e bl2 -----	1-6
A	US 2002/122811 AI (STEIN BERND [DE] ET AL) 5 September 2002 (2002-09-05) paragraphs [0007] - [0012] , [0016] , [0022] , [0026] - [0032] -----	1-6
A	EP 1 192 931 AI (WELLA AG [DE]) 3 Apr i l 2002 (2002-04-03) paragraphs [0001] , [0004] , [0020] , [0021] ; exampl es 2-3 ----- -/--	1-6
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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