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**Datasheet for the decision
of 27 July 2017**

Case Number: T 1526/12 - 3.3.07

Application Number: 04765354.8

Publication Number: 1677753

IPC: A61K8/92, A61K8/89, A61Q5/02,
A61Q5/12

Language of the proceedings: EN

Title of invention:
Hair care composition

Patent Proprietor:
Unilever PLC
Unilever N.V.

Opponents:
Kao Germany GmbH
Henkel AG & Co. KGaA

Headword:
Hair care composition/UNILEVER

Relevant legal provisions:
EPC Art. 54(3), 56, 87(1)

Keyword:

Priority - partial priority (yes)

Novelty (yes)

Inventive step (yes)

Decisions cited:

G 0001/15



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 1526/12 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 27 July 2017

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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 8 June 2012 rejecting the opposition filed against European patent No. 1677753 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman J. Riolo
Members: A. Usuelli
 Y. Podbielski

Summary of Facts and Submissions

- I. European patent No. 1 677 753, claiming the priority dates of 27 October 2003 from EP 03256770 (P1) and 3 February 2004 from GB 0402270 (P2), was granted on the basis of 11 claims.

Independent claim 1 of the patent read as follows:

"1. An aqueous hair care composition comprising:
a) 0.1% to 8% by weight of the total composition of beeswax
b) 0.01% to 10% by weight of the total composition of a silicone polymer with a viscosity at 0.01 Hz of at least 80,000 mm²/s at 25°C."

Independent claims 9 and 11 were directed, respectively, to a process for preparing the composition of claim 1 and to the use of this composition for conditioning hair.

- II. Two oppositions were filed against the patent on the grounds that its subject-matter lacked novelty and inventive step. The following documents were among those cited during the opposition proceedings:

D1: US 5,106,613

D2: US2003/0143177

D3: WO02/03932

D4: Product information - Dow Corning® 9040

D5: JP2002/003342

D5a: English translation of D5

D7: WO2005/084622

D8: WO2005/084623

D9: Product information - Dow Corning® 1785

D10: Product information - Dow Corning® HMW 2220

D11: US 2003/0105169

III. By decision posted on 8 June 2012 the opposition division rejected the oppositions.

In the decision under appeal the opposition division came to the conclusion that the subject-matter defined in the claims of the opposed patent was partly entitled to the priority of P2, with the consequence that post-published documents D7 and D8 could not be considered novelty-destroying. The mascara composition disclosed in example II of D3 was not suitable as a hair-care composition. Thus, the hair-care composition of the patent was novel also over D3.

As to inventive step, the opposition division considered that document D5 was the closest prior art for the assessment of inventive step. The compositions of the opposed patent differed from the hair conditioners disclosed in D5 in the higher viscosity of the silicone polymer. Having regard to the experimental data reported in paragraph [0111] of the patent, the technical problem was to be seen in the provision of a hair care composition comprising beeswax in which the negative effects of beeswax were avoided or reduced. The available prior art did not indicate that these effects could be minimised by using a high-viscosity silicone. The requirements of Article 56 EPC were therefore met.

IV. Opponents I and II (hereinafter appellant I and appellant II) lodged an appeal against that decision.

V. Oral proceedings were held on 27 July 2016 in the absence of the appellants who had informed the Board by

letters of 23 July 2017 (appellant I) and 27 June 2017 (appellant II) that they would not be attending.

VI. The appellants' arguments, as far as they are relevant for the present decision, can be summarised as follows:

(a) Novelty

The hair-care composition defined in claim 1 as granted was broader than the compositions defined in the priority documents P1 and P2. Thus, this claim was not entitled to any of the claimed priority dates. The principles for entitlement to partial priority defined in G 2/98 did not apply to present claim 1 since the claim comprised continuous numerical ranges rather than distinguishable alternative embodiments. Accordingly, documents D7 and D8, published after the filing date of the patent in suit, were prior art pursuant to Article 54(3) EPC. Composition 1 of D7 and the compositions of examples 5 and 7 of D8 anticipated claim 1 of the patent. This claim was not novel also in view of the disclosure of example II of D3.

(b) Inventive step

The hair-care composition of the patent in suit differed from the compositions disclosed in D5 only in the viscosity of the silicone polymer. Compositions 1, 3 and C3 tested in the patent differed, not only in the viscosity of the silicone polymers, but also in the amounts of excipients contained in said silicone polymers. Thus, the improved results obtained for the compositions of claim 1 (compositions 1 and 3) could not be ascribed only to the distinguishing feature, i.e. the viscosity of the silicone polymer. The technical problem was therefore the provision of an alternative hair-care composition. Silicone polymers of high viscosity were disclosed for instance in D9 and

D11. Thus, the patent was obvious in view of the combination of the teachings of D5 with D9 or D11.

Alternatively, D1 could be taken as the closest prior art. The composition of the patent in suit differed from the composition of D1 in the viscosity of the silicone polymer. The technical problem was the provision of alternative hair-compositions. Document D2 suggested using silicones of high viscosity in hair-cleansing compositions. Thus, the composition of the patent was not inventive over a combination of the teachings of D1 and D2.

VII. The respondent's arguments, as far as they are relevant for the present decision, can be summarised as follows:

(a) Novelty

The opposition division's conclusion as to the entitlement to partial priority from P2 was correct. Thus, neither D7 nor D8 was prior art pursuant to Article 54(3) EPC as maintained by the appellants. Example II of D3 related to a mascara that was not suitable as a hair-care composition. Moreover, the viscosity value of the silicone polymer contained in this composition was not clear. Thus, the patent was novel also over D3.

(b) Inventive step

The appellants had not submitted any evidence to support the argument that the presence of different excipients within the commercially available silicone polymers affected the results of the experiments disclosed in the patent. This was especially the case as the level of these excipients was minimal.

D1 could not be taken as the closest prior art since it did not disclose any specific compositions containing beeswax.

Thus, the appellants' arguments on inventive step were not convincing.

VIII. The appellants requested in writing that the decision under appeal be set aside and that the patent be revoked.

IX. The respondent requested that the appeals be dismissed or, alternatively, that the patent be maintained on the basis of one of auxiliary requests 1 to 6 filed together with the reply to the appeals on 22 February 2013.

Reasons for the Decision

Main request (patent as granted)

1. Entitlement to partial priority from P2 (GB 0402270).

1.1 The opposition division considered that the subject-matter of the claims of the patent was entitled to partial priority from P2. The Board agrees, for the reasons explained below:

1.1.1 P2 discloses in the "Summary of the invention" (page 3, lines 10 to 18) and in claim 1 a hair-conditioning composition comprising 60% or more of water, 0.2% to 4% of beeswax and 0.1% to 0.4% of a silicone polymer with a viscosity of 100 Pa.s or more. The upper limit of 0.4% reported for the silicone polymer is at variance with the statement on page 8 (lines 1 to 3) that the

"silicone polymer is suitably present as from 0.1% to 4% by weight of the composition, preferably from 0.3% to 3%, more preferably from 0.5% to 2%". In line with the statement on page 8, in the sole example of the patent (page 26) the amount of silicone polymer is 2%. In the Board's view the upper limit reported on page 3 is clearly erroneous.

On page 6 (lines 18 to 22) it is furthermore stated that the silicone polymer has a viscosity of 600 Pa.s, preferably greater than 1 000, more preferably greater than 10 000, and even more preferably greater than 100 000 Pa.s. This passage of page 6 refers in general terms to all the "compositions of the invention", without any restriction as to the amounts of the components. Thus, in the Board's view, the whole disclosure of P2 makes available compositions comprising 60% or more of water, 0.2% to 4% of beeswax and 0.1% to 4% of silicone polymer and in which the viscosity of the silicone polymer is within any of the ranges defined in page 3 or page 6. The most preferred range of viscosity is greater than 100 000 Pa.s (greater than 100 million mm^2/s adopting the conversion $1 \text{ Pa.s} = 1\,000 \text{ mm}^2/\text{s}$ (see 2.1.2 of the decision)). Thus, P2 discloses *inter alia* a subgroup of hair-care compositions comprising:

- a) 60% or more of water,
- b) 0.2% to 4% of beeswax and
- c) 0.1% to 4% of a silicone polymer with a viscosity greater than 100 million mm^2/s .

(hereinafter subgroup A)

The compositions can be used for instance as hair-conditioning compositions (page 3, line 13) or as shampoos.

- 1.1.2 Claim 1 of the patent encompasses alternative hair-care compositions. These compositions differ, for instance, in the amounts of beeswax and silicone polymer or in the presence of silicone polymers of different viscosity.

The ranges of claim 1 defining the amounts of beeswax (0.1% to 8%) and silicone polymer (0.01% to 10%) encompass the corresponding ranges of P2 (0.2% to 4% and 0.1% to 4%). The viscosity of the silicone polymer is at least 80 000 mm²/s. This range of viscosity comprises the preferred values of viscosity disclosed on page 6 of P2.

Accordingly, claim 1 encompasses at least some of the compositions disclosed in P2. In particular, it comprises the subgroup A defined in point 1.1.1 above, which therefore represents a subgroup of alternative compositions within the general group of compositions defined in claim 1.

- 1.1.3 In G 1/15 the Enlarged Board of Appeal answered the questions of law referred to it concerning the concept of partial priority as follows:

"Under the EPC, entitlement to partial priority may not be refused for a claim encompassing alternative subject-matter by virtue of one or more generic expressions or otherwise (generic "OR"-claim) provided that said alternative subject-matter has been disclosed for the first time, directly, or at least implicitly, unambiguously and in an enabling manner in the priority

document. No other substantive conditions or limitations apply in this respect." (see the order of the decision).

1.1.4 It was not disputed by the appellants that the compositions disclosed in P2 are disclosed in an enabling manner. Nor was it called into question that P2 was the first application of the patent proprietor or its predecessor in title disclosing these compositions. Thus, the application to the present case of the principles set out in G 1/15 leads to the conclusion that claim 1 of the patent in suit is entitled to partial priority in respect of the compositions disclosed in P2 identified in point 1.1.1 above. For instance, the parts of claim 1 concerning subgroup A are entitled to the priority of P2.

2. Novelty

2.1 The appellants objected that the patent in suit lacked novelty over documents D7, D8 and D3.

2.2 Post-published documents D7 and D8 claim priority dates which are after the date of filing of P2. Thus, these documents do not constitute prior art pursuant to Article 54(3) EPC for subject-matter of the patent in suit which is entitled to the priority date of P2.

2.3 The appellants considered that composition 1 of D7 (page 21) and the compositions of examples 5 and 7 of D8 (page 23) anticipated claim 1.

The Board notes that all these compositions contain 1.5% of beeswax, 2% of the silicone polymer HMW2220 and more than 60% of water. As indicated in paragraph

[0110] of the patent, HMW2220 has a viscosity of 120 million mm²/s.

Thus, these compositions are comprised in the group of compositions described in P2 (see point 1.1.1 above). In particular, they are included in subgroup A. It follows that in respect of these compositions, claim 1 of the patent in suit is entitled to the priority date of P2. Accordingly, neither D7 nor D8 constitutes prior art in respect of this subject-matter.

2.4 The objection of lack of novelty in view of D3 is based on example II which relates to a mascara composition containing the commercial product DC9040®. Document D4 (page 1, "Typical properties" and "Description") indicates that DC9040® is a blend comprising a mixture of silicone polymers in cyclomethicone having a viscosity between 250 000 and 580 000 cSt (i.e 250 000 to 580 000 mm²/s). As pointed out by the respondent, the viscosity reported in D4 is that of the whole blend. The viscosity of the silicone polymers contained in the product DC9040® is not disclosed in D4. It follows that example II does not provide an unambiguous disclosure of a composition comprising a silicone polymer with a viscosity of at least 80 000 mm²/s.

2.5 Moreover, the Board agrees with the opposition division (point 2.2. of the reasons) that the expression "aqueous hair care composition" used in claim 1 of the patent would be understood by a person skilled in the art as relating to a product which is suitable for the care of body hair, including in particular the hair of the scalp. A mascara composition is a product intended for the care of eyelashes. In the Board's view a skilled person would not consider a mascara composition

as a product suitable for the care of body hair. Thus, claim 1 is novel also over D3.

3. Inventive step

3.1 The invention underlying the patent in suit relates to hair-care compositions containing beeswax and a silicone polymer. The main problem addressed in the patent is to minimise the problems of coated feel and stickiness which normally occur when such compositions are used and to improve the conditioning effects and manageability of the hair (see paragraph [0005]).

3.2 Document D5 (hereinafter reference is made to the English translation D5a) discloses hair-care compositions comprising beeswax and a silicone polymer (see examples 1 to 6). The Board agrees with the opposition division that this document is the closest prior art.

Document D1, proposed by appellant I as the closest prior art, relates to compositions which may comprise beeswax only as an optional component and does not disclose any composition containing this substance. Furthermore, this document does not address the specific problems arising from the use of compositions containing beeswax and a silicone polymer.

3.3 There is no information in D5a as to the viscosity of the silicone polymer used in the hair-care compositions. The opposition division considered that the subject-matter of claim 1 of the patent differed from the disclosure of D5a on account of this feature. The parties do not dispute that finding and the Board accepts that the compositions of claim 1 differ from the compositions of D5a in the requirement that the

silicone polymer has a viscosity at 0.01 Hz of at least 80,000 mm²/s at 25°C.

- 3.4 The patent discloses in paragraphs [0109] to [0113] an experiment relating to the assessment of the effects of the viscosity of the silicone polymer on the mean radial spacing. As explained in paragraph [0096], a low value of the mean radial spacing indicates that the hair is easy to manage.

The most relevant data of the table of paragraph [0111], are those concerning compositions 1, C and 3 since these compositions differ only in the viscosity of the silicone polymer. Compositions 1 and 3 are included in claim 1 and contain polymers having a viscosity of respectively 120 million mm²/s and 1 million mm²/s. Composition C is a comparative composition that contains a silicone polymer having a viscosity of 60 000 mm²/s. The results disclosed in paragraph [0111] indicate that compositions 1 and 3 are easier to manage than composition C. Paragraph [0111] also provides data in relation to two further compositions included in claim 1, namely compositions 5 and 6. These data show that an increase in the amount of beeswax results in higher mean radial spacing values.

On the basis of these experimental data, the opposition division formulated the technical problem as the provision of a hair-care composition comprising beeswax in which the negative effects of beeswax were avoided or reduced.

- 3.5 The appellants pointed out that the silicone polymers used in compositions 1 and 3, namely the commercial products HMW 2220 and DC 1785, contain, in addition to

the silicone derivative, respectively 4.8% of ethoxylated alcohol and 1.7% of triethanolamine dodecylbenzenesulfonate. They furthermore observed that the exact composition of the silicone polymer used in composition C, namely the commercial product DC 1668, was unknown. Starting from these observations, they concluded that the compositions tested in the patent differed not only in the viscosity of the silicone polymers but also in the amounts of excipients contained in said polymers. Accordingly, the experimental report disclosed in the patent did not constitute evidence of an improvement arising from the distinguishing feature, i.e. the viscosity of the silicone polymer.

- 3.6 The Board notes that the amount of excipients contained in the products HMW 2220 and DC 1785 is small compared to the amount of silicone polymer, which is 60% in both cases (see in D9 and D10 paragraphs "Typical properties"). The appellants did not submit any evidence or technical argument to demonstrate that the presence of minor amounts of excipients may substantially affect the values of the mean radial spacing. Concerning the silicone polymer contained in composition C, namely DC 1668, the Board concurs with the appellants that no information is given in the patent as to its precise composition. The product is nevertheless described in the table of paragraph [0109] as a polydimethylsiloxane, i.e. as a silicone polymer. Thus, in the absence of any experimental evidence from the appellants, it appears reasonable to assume that also in this case the mean radial spacing would be determined by the properties of the silicone polymer rather than those of the excipients.

The appellants' arguments are therefore unconvincing. Hence, the Board has no reason to depart from the technical problem defined in the decision under appeal (see point 3.4 above).

- 3.7 Document D5a does not provide any teaching concerning the effects of the viscosity of the silicone polymers in hair-care compositions containing beeswax. Documents D2, D9 and D11 indicate that high-viscosity silicone polymers are commonly used in hair-care compositions. However, none of these documents suggests the use of these polymers in compositions containing beeswax in order to reduce the negative effects of this substance.

It follows from the above that the decision of the opposition division finding that claim 1 meets the requirements of Article 56 EPC holds good. Independent claims 9 and 11 are likewise inventive since they concern respectively the preparation and the use of the composition of claim 1.

Order

For these reasons it is decided that:

The appeals are dismissed.

The Registrar:

The Chairman:



N. Schneider

J. Riolo

Decision electronically authenticated