## PATENTAMTS

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#### Datasheet for the decision of 28 June 2016

Case Number: T 1097/13 - 3.3.07

Application Number: 07786987.3

Publication Number: 2046453

A61Q5/00, A61K8/04, A61K8/31, IPC:

> A61K8/34, A61K8/37, A61K8/41, A61K8/49, A61K8/892, A61K8/92,

A61Q5/12

Language of the proceedings: ΕN

#### Title of invention:

Anti-dandruff hair conditioning composition

#### Patent Proprietor:

Unilever PLC Unilever N.V.

#### Opponents:

Beiersdorf AG The Procter & Gamble Company L'Oréal Kao Germany GmbH Henkel AG & Co. KGaA

#### Relevant legal provisions:

EPC Art. 56

### Keyword:

Inventive step - (no)



# Beschwerdekammern Boards of Appeal Chambres de recours

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Case Number: T 1097/13 - 3.3.07

# D E C I S I O N of Technical Board of Appeal 3.3.07 of 28 June 2016

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Decision under appeal: Interlocutory decision of the Opposition

Division of the European Patent Office posted on 26 March 2013 concerning maintenance of the European Patent No. 2046453 in amended form.

#### Composition of the Board:

Chairman J. Riolo
Members: A. Usuelli
P. Schmitz

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#### Summary of Facts and Submissions

- I. European patent No. 2 046 453, based on European patent application No. 07786987.3, was granted on the basis of seven claims.
- II. Five oppositions were filed against the patent on the grounds that its subject-matter lacked novelty and inventive step, it was not sufficiently disclosed and it extended beyond the content of the application as filed. The documents cited during the opposition proceedings included the following:

D4: WO 02/067880 A1

D6: Mintel Database: "2 in 1 Shampoo & conditioner"

D8: WO 01/35912 A1

D19: US 2003/0228272 A1

D20: Website "www.cosmeticanalysis": Helianthus Annuus

Seed Extract

III. By an interlocutory decision posted on 26 March 2013, the opposition division maintained the patent in amended form. The decision was based on a set of claims filed as main request during the oral proceedings held on 7 March 2013.

Claim 1 of this request read as follows:

"1. A hair conditioning composition comprising i) from 0.25 to 10 wt.% of a cationic surfactant; ii) from 0.1 to 10 wt.% of a triglyceride oil; and iii) an anti dandruff agent selected from the group consisting of zinc pyrithione, octopirox, climbazole and ketoconazole".

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IV. In its decision, the opposition division held that the subject-matter of the main request complied with the requirements of Article 123(2) EPC, sufficiency of disclosure and novelty.

Document D19 was the closest prior art for the assessment of inventive step. The subject-matter of claim 1 differed from the anti-dandruff composition of D19 in the mandatory presence of a triglyceride. The experimental data disclosed in Table 2 of the patent showed that the composition according to claim 1 provided better results in terms of deposition of anti-dandruff agent. The technical problem was to be seen in the provision of a conditioning anti-dandruff composition having improved deposition of anti-dandruff agent. The prior art did not suggest adding triglycerides in order to improve deposition. The subject-matter of the main request was therefore inventive.

- V. Opponents 2 to 5 (appellants 2 to 5) lodged an appeal against that decision.
- VI. The patent proprietors (respondents) replied to the appeals by letter of 6 December 2013. They requested that the appeals be dismissed, i.e. that the patent be maintained on the basis of the request deemed allowable by the opposition division, and filed three auxiliary requests.

Claim 1 of auxiliary request 1 differed from claim 1 of the request allowed by the opposition division in the deletion of the indefinite article "a" before the features "cationic surfactant" and "triglyceride oil". - 3 - T 1097/13

Claim 1 of auxiliary request 2 differed from claim 1 of auxiliary request 1 in that the ranges defining the amounts of cationic surfactant and triglyceride oil were limited respectively to 0.25 to 4 wt.% and 1 to 3 wt.%.

Claim 1 of auxiliary request 3 differed from claim 1 of auxiliary request 2 in that the feature "triglyceride oil" was replaced by "sunflower oil" and in that the following feature was added at the end of the claim:

"wherein the ratio anti-dandruff agent to sunflower oil is from 1.3 to 2:1"

- VII. On 21 April 2016 the Board issued a communication pursuant to Article 15(1) RPBA. Concerning the assessment of inventive step, it indicated that document D19 appeared to be the closest prior art. In relation to the experimental data reported in Table 2 of the patent, it expressed the view that these could not provide a valid basis for a comparison with the product of D19 because the comparative composition did not contain tea tree oil, which was an essential component of the composition of D19.
- VIII. Oral proceedings were held on 23 June 2016. They were not attended by appellant 3, which had duly informed the Board accordingly by letter of 19 April 2016, and by opponent 1, party as of right to the appeal proceedings.
- IX. The arguments of the appellants when starting from D19 as the closest prior art can be summarised as follows:

The hair conditioning composition defined in claim 1 of the main request differed from the composition of - 4 - T 1097/13

example 3 of D19 in the presence of a triglyceride oil. There was no evidence for any technical effect which could be attributed to this distinguishing feature. The comparative test disclosed in the patent was of no relevance in this respect since the comparative composition was different from the composition of D19. The technical problem was to be seen in the provision of an alternative anti-dandruff composition. Document D19 suggested in paragraph [0056] the possibility of including natural oils containing triglycerides in the anti-dandruff compositions. The use of triglycerides in compositions for the treatment of dandruff was furthermore disclosed in D4 and D8. Contrary to the respondents' opinion, the triglyceride oils could be included in shampoos without impairing their stability. Indeed, the shampoos disclosed in D6 and in example 5 of D4 contained triglyceride oil. The subject-matter of the main request was therefore obvious. The limitations introduced in the auxiliary requests as to the amount of the triglyceride oils was suggested in page 10 of D4. This document also suggested the use of sunflower oil as an example of triglyceride oil. Thus, also the subject-matter of the auxiliary requests did not involve an inventive step.

X. The respondents' arguments with regard to inventive step can be summarised as follows:

Document D19 was the closest prior art. The hair conditioning composition of claim 1 of the main request differed from the composition of example 3 of the closest prior art on account of the inclusion of a triglyceride oil. There were no experiments comparing the composition of the invention with the composition of D19. Nevertheless, the experimental data reported in the example of the patent showed that the composition

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according to claim 1 gave good deposition of anti-dandruff agent. The technical problem was to be seen in the provision of an alternative anti-dandruff composition. In paragraph [0056] of D19 it was indicated that the use of oils in shampoos had found limited applicability due to their incompatibility with surfactants. Accordingly, the skilled person would have not modified the composition of example 3 by adding of triglyceride oils, since this would have caused problems of stability. Documents D4 and D8 disclosed the use of triglycerides in anti-dandruff compositions. However, these substances were simply mentioned among various other lipophilic agents. There was no teaching in these documents as to the effect of the triglycerides on the deposition of the anti-dandruff agent. The skilled person would have had no reason to include a triglyceride in the composition of D19. In auxiliary requests 2 and 3 the maximum amount of triglyceride oil was 3%. This limitation was not suggested in the prior art. In auxiliary request 3 the triglyceride oil was sunflower oil. The skilled person had no reason to select this specific oil as a source of triglycerides.

- XI. The appellants requested that the decision under appeal be set aside and that the patent be revoked.
- XII. The respondents requested that the appeals be dismissed, or alternatively that the decision under appeal be set aside and that the patent be maintained on the basis of one of the three auxiliary requests filed with letter of 6 December 2013.

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#### Reasons for the Decision

#### Main request

#### 1. Inventive step

The invention underlying the patent in suit relates to hair conditioning compositions which comprise an anti-dandruff agent ([0001]).

#### 1.1 Closest prior art

Document D19 represents the closest prior art. This document relates to anti-dandruff conditioning shampoos containing a natural oil ([0012]). The conditioning shampoo disclosed in example 3 contains *inter alia* 1% of tea tree oil, 0.5% of cetrimonium chloride, i.e. a cationic surfactant, and 2.1% of Zinc Omadine®. As explained in paragraph [0054] of D19, Zinc Omadine is the brand name for the anti-dandruff agent Zinc pyrithione®.

It was not disputed by the parties that the composition of claim 1 of the main request differs from this composition of D19 in that of a triglyceride oil is present.

#### 1.2 Technical problem

1.2.1 In paragraph [0003] of the patent in suit, it is explained that the compositions of the invention provide excellent deposition of the anti-dandruff agent.

This effect is illustrated in the single example of the patent which shows that a composition according to

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claim 1 of the main request (Example 1) provides better results in terms of the anti-dandruff agent's deposition onto the skin than a comparative composition (Example A).

1.2.2 In the communication issued on 21 April 2016 the Board observed that the comparative composition used in the experiment of the patent could not be considered to reflect the teaching of D19 because it did not contain tea tree oil, which represented an essential feature of the compositions disclosed in this document. Hence, contrary to the position taken by the opposition division in its decision, the Board expressed the view that the data reported in the example of the patent could not provide a basis for a comparison with the product of D19.

During the oral proceedings the respondents agreed that the experiment disclosed in the patent did not allow the composition of claim 1 to be compared with the composition of D19. Nevertheless, they were of the view that the example showed that the composition of the opposed patent provided good deposition of the antidandruff agent. In their opinion the technical problem was to be formulated as the provision of an alternative anti-dandruff conditioning composition.

The Board accepts this formulation of the technical problem, which was not contested by the appellants.

#### 1.3 Obviousness

1.3.1 In paragraph [0056] of D19 it is stated that natural and synthetic oils are commonly used in hair care products to impart conditioning properties to hair. As examples of commonly used oils, D19 mentions olive,

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castor and avocado oils. These oils are also mentioned in paragraph [0010] of the opposed patent as preferred examples of triglyceride oils.

The information that triglyceride oils are suitable for use in anti-dandruff hair compositions can be derived also from documents D4 and D8. D4 teaches the use of lipophilic agents or lipid precursors in the manufacture of a composition for the treatment or prevention of dandruff (first paragraph of page 5). The lipophilic agent is for instance a triglyceride (page 10, line 29 to page 11, line 29) and the compositions are preferably in the form of shampoos or conditioners (page 28, lines 14 and 15). Examples 5discloses an anti-dandruff composition containing sunflower seed oil, i.e. a triglyceride oil (see page 11, line 22). Document D8 relates inter alia to antidandruff hair conditioning compositions comprising a low melting point oil, a conditioning agent and an anti-dandruff agent (paragraph bridging pages 2 and 39). The low melting point oil is for instance a triglyceride oil (page 20, lines 7 to 15).

1.3.2 From the above it emerges that triglyceride oils are quite commonly used in anti-dandruff compositions. This appears also to exclude the existence of any real concern as to the stability of compositions containing these oils. In this respect, the respondents emphasised a passage of D19 (paragraph [0056]) stating that the use of oils in shampoos has found limited applicability due to their incompatibility with surfactants.

In the Board's view, this passage would not be regarded by the skilled person as a warning to avoid the use of oils in hair care compositions. The wording "limited applicability" suggests that, despite possible problems - 9 - T 1097/13

of interaction with the surfactants, oils have been used in shampoo. Indeed, as mentioned above, in the same paragraph of D19 it is stated that natural and synthetic oils are commonly used in hair care products. Furthermore, document D6, an excerpt from the Minitel database, shows that an anti-dandruff shampoo containing Helianthus Annuus Seed Extract (i.e. sunflower seed oil, see D20) was available on the market before the priority date of the patent. Example 5 of D4 indicates that the sunflower seed oil can be present in an anti-dandruff shampoo in a relatively high amount, i.e. 10%.

Therefore, there is clearly no technical prejudice against the use of oils, such as triglycerides oils, in shampoos or other hair care compositions.

- 1.3.3 It follows from the above that a straightforward solution to the technical problem of providing an alternative to the composition of example 3 of D19 would be to add a triglyceride oil to this composition. The skilled person would thereby arrive at the subject-matter of claim 1 without any inventive effort.
- 1.3.4 The respondents argued that none of the cited documents suggested using a triglyceride oil in order to improve deposition of the anti-dandruff agent.

The Board cannot follow this argument. Also the composition of example 3 of D19 must deposit some anti-dandruff agent in order to be effective. As acknowledged by the respondents, it has not been demonstrated that the composition of claim 1 performs better than the product of D19. In particular, there is no evidence of improved deposition of the anti-dandruff agent. Thus, the decisive question for the assessment

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of inventive step is not what the skilled person would do in order to improve the deposition of the composition of D19 but what he would do in order to provide a composition that substantially retains the same properties, i.e. an alternative composition. For the reasons discussed above, the Board considers that the skilled person would solve this problem by adding a triglyceride oil to the composition of example 3 of D19.

In view of the foregoing, the Board concludes that the subject-matter of claim 1 of the main request does not fulfil the requirements of Article 56 EPC.

#### Auxiliary request 1

Claim 1 of this request differs from claim 1 of the main request only in the deletion of the indefinite article "a" before the features "cationic surfactant" and "triglyceride".

This amendment has no impact on the assessment of inventive step. Nor have the respondents submitted any arguments in this respect.

Thus, auxiliary request 1 does not fulfil the requirements of Article 56 EPC.

#### Auxiliary request 2

3. Compared to claim 1 of the main request, claim 1 of auxiliary request 2 differs in that the range defining the amount of cationic surfactant has been narrowed down to 0.25 to 4 wt.% and the range concerning the amount of triglyceride oil has been narrowed down to 1 to 3 wt.%.

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- 3.1 The conditioning shampoo of example 3 of D19 contains 0.5 % of cetrimonium chloride, which is a cationic surfactant. Hence, the limitation concerning the amount of this component does not establish any new distinguishing feature over the closest prior art and therefore does not provide any contribution to the inventiveness of the claim.
- 3.2 Concerning the amount of triglyceride oil, D4 suggests including it in hair compositions in an amount which is preferably from 1 to 5% (page 10, line 27). Since there is no technical effect deriving from the inclusion of triglyceride oils in an amount comprised between 1 to 3%, as required by claim 1 of the present request, the selection of this range cannot be considered to render inventive the subject-matter of the claim.

Thus, the subject-matter of auxiliary request 2 is not inventive either.

#### Auxiliary request 3

- 4. Claim 1 of this request requires the presence of sunflower oil as triglyceride oil and specifies that the ratio anti-dandruff agent to sunflower oil is from 1:3 to 2:1.
- 4.1 Sunflower oil is mentioned in page 11 of D4 (line 22) as an example of preferred triglyceride oil and it is included in the compositions disclosed in examples 4 and 5 of this document. As discussed above, sunflower oil is also present in the commercial product described in D6.

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- 4.2 Lipophilic agents such as sunflower oil are included in the compositions of D4 in an amount which is preferably from 1 to 5% by weight (page 10, line 27). The anti-dandruff agents are preferably present in an amount between 0.5 to 3% by weight (page 27, line 11). Thus, the preferred amounts defined in D4 allow the anti-dandruff agent and sunflower oil to be combined in ratios (e.g. 1:1) falling inside the range of claim 1 of auxiliary request 3.
- 4.3 The patent does not provide any evidence of any particular effect associated with the choice of sunflower oil as triglyceride oil and/or with the use of the anti-dandruff agent and sunflower oil in the specific ratio defined in claim 1.

Hence, the limitations introduced in claim 1 of auxiliary request 3 are based on arbitrary selections within the general teaching of the prior art, in particular D4. Accordingly, they do not result in any inventive contribution to the subject-matter of claim 1.

In view of the above, the Board concludes that auxiliary request 3 does not comply with Article 56 EPC either.

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#### Order

#### For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- 2. The patent is revoked.

The Registrar:

The Chairman:



S. Fabiani J. Riolo

Decision electronically authenticated