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**Datasheet for the decision
of 16 March 2021**

Case Number: T 1848/17 - 3.3.07

Application Number: 07822032.4

Publication Number: 2079435

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Language of the proceedings: EN

Title of invention:
CONDITIONING SHAMPOO COMPOSITIONS

Patent Proprietor:
Unilever PLC
Unilever N.V.

Opponents:
Henkel AG & Co. KGaA
Kao Germany GmbH
The Procter & Gamble Company

Headword:
Conditioning shampoo compositions / UNILEVER

Relevant legal provisions:
RPBA Art. 13(1)
EPC Art. 56, 100(a)

Keyword:

Late-filed evidence - admitted (no)
Inventive step - (no)

Decisions cited:

T 1962/12



Beschwerdekammern

Boards of Appeal

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Case Number: T 1848/17 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 16 March 2021

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 21 June 2017
rejecting the opposition filed against European
patent No. 2079435 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman D. Boulois
Members: E. Duval
P. Schmitz

Summary of Facts and Submissions

I. European patent 2 079 435 (hereinafter "the patent") was granted on the basis of 3 claims. Claim 1 of the patent read as follows:

"An aqueous conditioning shampoo composition comprising an anionic cleansing surfactant and a gel network comprising:

(i) a fatty material selected from C₁₂-C₂₂ fatty alcohol, C₁₂-C₂₂ fatty acid, C₁₂-C₂₂ fatty amide or mixtures thereof,

(ii) hydrophobic particulates having a melting point of greater than that of the fatty material,

(iii) a quaternary ammonium compound having at least one carbon chain length C₁₂-C₃₀ and

(iv) water,

wherein the gel network is formed by combining (i), (ii), (iii) and (iv) at a temperature above the melting point of the fatty material, wherein the fatty material is melted in the water prior to adding the hydrophobic particulates, and wherein the hydrophobic particulates have a melting point higher than that of said quaternary ammonium compound."

II. Three 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.

III. The opposition division rejected the oppositions.

- IV. The decision of the opposition division cited among others the document D14 (JP-A-2004-307463) and its translation in English D14a.
- V. In particular, the opposition division decided that:
- (a) The patent fulfilled the provisions of Article 123(2) and 83 EPC. The claimed subject-matter was novel.
 - (b) Regarding inventive step, starting from D14a as closest prior art, the claimed subject-matter differed not only in that an anionic surfactant a) was present, but also in that hydrophobic particles ii) were present, further in that the gel network was formed by combining the components (i), (ii), (iii) and (iv) at a temperature above the melting point of (i), and even further in that (i) should be melted in (iv) prior to adding (ii). The objective technical problem was the provision of alternative aqueous conditioning shampoos. The claimed solution was considered to be a non-obvious alternative. In particular, the prior art did not motivate the skilled person to prepare a gel network by melting the specific fatty material (i) in the water phase (iv) prior to adding the hydrophobic particles (ii).
- VI. Opponent 2 (appellant opponent 2) and opponent 3 (appellant opponent 3) each lodged an appeal against the above decision.

With their statements setting out the grounds of appeal, both appellants introduced D14b, a human translation of D14.

VII. With their reply to the appeals, the patent proprietors (respondents) defended their case on the basis of the patent as granted as main request, and submitted auxiliary requests 1-3.

Claim 1 of auxiliary request 1 differed from claim 1 of the main request by the additional feature that "the quaternary ammonium compound is added after the hydrophobic particulates".

Claim 1 of auxiliary request 2 differed from claim 1 of the main request by the additional feature that "the hydrophobic particulates are selected from hydrophobically modified natural clays and synthetic clays".

Claim 1 of auxiliary request 3 combined both additional features of auxiliary requests 1 and 2.

VIII. The Board set out its preliminary opinion in a communication under Article 15(1) RPBA dated 27 March 2020. In this communication, the Board in particular questioned whether the process specified in claim 1 imparted any distinguishing feature to the claimed shampoo and whether the subject-matter of claim 1 of the main request involved an inventive step.

IX. By letter dated 19 June 2020, the respondents filed experimental data with the aim of showing that the process steps imparted distinguishing features to the resultant shampoos.

X. Oral proceedings were held before the Board.

XI. The arguments of the appellants can be summarised as follows:

(a) Admittance of the experimental data filed by the respondents with letter of 19 June 2020

The Board's provisional opinion with respect to inventive step was solely based on issues and arguments previously raised by the parties, and hence did not justify the late filing of the experimental evidence on 19 June 2020. Furthermore, the experimental data were not *prima facie* relevant. The preparation processes used therein led to formulations which were statistically undistinguishable, and differed in many aspects not reflected in claim 1 of the patent. The filing of these experimental data raised complex issues and was detrimental to procedural economy. Thus, the experimental data should not be admitted into the proceedings.

(b) Inventive step

The closest prior art D14 (see the translation D14b) disclosed (see example 22) a shampoo composition comprising an anionic surfactant together with a gel network comprising a C22 quaternary ammonium, a C22 fatty alcohol and bentonite, which was a clay particulate.

The subject-matter of claim 1 of the main request was a product defined in part by process features. These process steps did not have any influence on the characteristics of the claimed shampoo and thus did not distinguish the claimed subject-matter.

Even if it were concluded that bentonite was not a hydrophobic particulate, the patent did not make plausible any unexpected technical effect of the claimed conditioning shampoo over those of D14. The objective technical problem was the provision of an alternative aqueous conditioning shampoo.

D14 (see paragraph [0038] of D14b) described mineral clay modified by a quaternary ammonium salt cationic surfactant as an alternative to natural clays. Such modified clay was described in paragraph [0034] and in the examples of the patent as hydrophobically modified clay. Accordingly, the subject-matter of claim 1 of the main request did not involve an inventive step.

The additional process step recited in claim 1 of auxiliary request 1 did not further distinguish the claimed subject-matter from D14b. The use of hydrophobically modified natural clay or synthetic clay required in claim 1 of auxiliary requests 2 and 3 was already considered in D14b. Accordingly, none of the auxiliary requests 1-3 fulfilled the requirements of inventive step.

XII. The respondents' arguments can be summarised as follows:

(a) Admittance of the experimental data filed by the respondents with letter of 19 June 2020

Contrary to the opposition division, the Board had indicated in its preliminary opinion that the claimed subject-matter lacked inventive step. The filing of the experimental evidence on 19 June 2020 was justified by this surprising turn of events.

Furthermore, the experimental evidence was *prima facie* relevant. In particular, it showed that the process steps defined in claim 1 had an influence on the wet slippery feel parameter. Accordingly, the experimental evidence should be admitted into the proceedings.

(b) Inventive step

Regarding claim 1 of the main request, the translation D14b remained unclear as to the composition of the shampoos. Additionally, the bentonite comprised in the shampoos of D14b was not a hydrophobic particulate as defined in the patent. Lastly, the passages of D14b relating to the preparation method (see paragraphs [0080] and [0073]) did not teach the sequence of process steps recited in claim 1 of the patent. These process steps conferred the resultant gel network and shampoo compositions with unique structures and unique properties.

Even if the objective technical problem was seen as the provision of an alternative aqueous conditioning shampoo, the claimed compositions were inventive over the teaching of D14b. There was no logical reason why the skilled person would, rather than merely could, provide the composition of D14b with a hydrophobic particulate. In addition, the modified clay mentioned in D14b (see paragraph [0038]) was not necessarily hydrophobic. Consequently, the criteria of inventive step were met.

The subject-matter of claim 1 of each of the auxiliary requests 1-3 was further distinguished

from D14b and also met the requirements of inventive step.

- XIII. Both appellants request that the decision under appeal be set aside and that the patent be revoked in its entirety. Appellant (opponent 3) additionally requests that the experimental data filed by the respondents with letter of 19 June 2020 not be admitted into the appeal proceedings.
- XIV. The respondents request that the appeals be dismissed and that the patent be maintained as granted (main request), or, alternatively, that the patent be maintained on the basis of one of the auxiliary request 1 to 3 filed with letter dated 16 March 2018.

Reasons for the Decision

1. Admittance of the experimental data filed by the respondents with letter of 19 June 2020
 - 1.1 By letter dated 19 June 2020, the respondents filed experimental evidence with the purpose of demonstrating the effects of the process steps specified in claim 1 of the main request on the resultant shampoo composition. The question of the admittance of this experimental evidence arises.
 - 1.2 In the present case, the summons to oral proceedings have been notified on 18 June 2019, i.e. before 1 January 2020. Consequently, under the transitional provisions of Article 25(3) RPBA 2020, Article 13(2) RPBA 2020 does not apply. Instead, the admittance of the experimental evidence must be decided under Article 13 RPBA 2007. Under Article 13(1) RPBA 2007, any amendment to a party's case after it has filed its

reply to the grounds of appeal may be admitted and considered at the Board's discretion.

1.3 According to the respondents, the filing of these experimental data is justified by the fact that the preliminary opinion of the Board departs from the conclusions of the opposition division. However, the preliminary opinion of the Board, expressed in the communication under Article 15(1) RPBA, was exclusively based on evidence and arguments submitted by the appellants in their statement setting out the grounds of appeal, in particular appellant (opponent 3)'s argument that the process features of claim 1 did not impart the claimed shampoo with any particular properties (see appellant (opponent 3)'s grounds of appeal, paragraph 34 and following). The mere fact that the Board came to a different conclusion than the opposition division cannot justify the filing of these experimental data at a late stage of the proceedings.

1.4 Furthermore, contrary to the respondents, the Board does not consider the experimental evidence to be *prima facie* relevant.

The data compare the properties of formulations comprising the same components but prepared according to different processes. However, the preparation methods do not differ merely in respect of the process steps defined in claim 1 of the main request, but also, for example, in respect of the temperature at which the gel network is added to the shampoo base (see comparative formulation 1 and inventive formulation 2). Furthermore, the properties measured for the resulting shampoos (mean wet combing energy, wet slippery feel data, see the tables on page 2) are within one standard deviation of each other.

The admittance of these experimental data would lead to the assessment of complex issues, such as whether the small differences in these measured values are statistically relevant, and whether any effect observed with respect to these properties credibly finds its origin in the claimed process steps (see T 1962/12, point 1.5.2 of the reasons). Assessing these issues for the first time during the oral proceedings would be detrimental to procedural economy.

For these reasons, the experimental data filed on 19 June 2020 are not admitted into the appeal proceedings under Article 13(1) RPBA 2007.

2. Inventive step, claim 1 of the main request

2.1 The patent pertains to aqueous conditioning shampoo compositions. The shampoo compositions according to claim 1 of the main request comprise an anionic cleansing surfactant and a gel network defined in part by its components, namely:

the fatty material (i),
the hydrophobic particulates (ii),
the C₁₂-C₃₀ quaternary ammonium compound (iii), and
water (iv);

and in part in terms of the process for its preparation, namely:

"the gel network is formed by combining (i), (ii), (iii) and (iv) at a temperature above the melting point of the fatty material, wherein the fatty material is melted in the water prior to adding the hydrophobic particulates".

2.2 D14 represents a suitable starting point for the assessment of inventive step. This is not contested.

D14 discloses (see the translation D14b, example 22 on pages 20) a shampoo composition comprising an anionic cleansing surfactant (POE laurylether sodium sulfate), a fatty material (i) (e.g. behenyl alcohol, a C₁₂-C₂₂ fatty alcohol), a particulate (ii) (bentonite, a clay material), a C₁₂-C₃₀-quaternary ammonium compound (iii) (behenyltrimethylammonium chloride), and water (iv). The feature of claim 1 requiring that the particulate has a melting point higher than that of (i) and (iii) is fulfilled by the bentonite particulate of D14. Contrary to the respondents, the Board considers the disclosure in D14b to be clear regarding the presence of these components.

D14/D14b (see paragraphs [0080] and [0073]) further discloses that the shampoo of example 22 is prepared by a method wherein:

- the quaternary ammonium compound (A) and the fatty material (B) among others are heated and dissolved at 45 to 80°C to prepare an oil phase,
- the particulate (C) and the surfactant among others are added to and dissolved in purified water at room temperature to 80°C to prepare an aqueous phase, and
- the oil phase is added to the aqueous phase to obtain the shampoo composition.

2.3 According to the respondents, the subject-matter of claim 1 of the main request differs from the composition of D14 in respect of the hydrophobic particulates and as a result of the process steps specified in claim 1.

2.3.1 Regarding the hydrophobic particulates, the Board concurs with the respondents that D14 does not disclose directly and unambiguously that the (unmodified)

bentonite used therein is hydrophobic in the sense of claim 1. The arguments and evidence submitted by the appellants to the contrary need not be considered further here, because the Board concludes anyway that the claimed subject-matter lacks an inventive step (see below).

- 2.3.2 As to the features of claim 1 pertaining to the method for preparing the claimed shampoo, namely:
- the gel network is formed by combining (i), (ii), (iii) and (iv) at a temperature above the melting point of the fatty material, and
 - the fatty material is melted in the water prior to adding the hydrophobic particulates,
- the Board agrees with the respondents that at least the step of melting the fatty material in water prior to adding the hydrophobic particulates is not disclosed in D14/D14b.

However, claims for products defined in terms of processes for their preparation are allowable only if the products themselves fulfil the requirements for patentability.

Hence, the process steps recited in claim 1 could differentiate the claimed shampoo from that of D14/D14b only if the process steps recited in claim 1 lead to a difference in the resulting shampoo. This, however, is not demonstrated. As submitted by appellant (opponent 3), the patent (see paragraphs [0019] and [0020]) does not indicate that combining components (i)-(iv) at a temperature above the melting point of the fatty material results in any additional characteristics beyond the formation of the gel network. The patent does not indicate either what effect, if any, is associated with the order in which the fatty material

and hydrophobic particulates are introduced (see paragraph [0023]). The respondents did not indicate which specific structural features or properties the process steps of claim 1 should impart to the resultant shampoo compositions, let alone adduce any evidence or convincing argument in support thereof.

In conclusion, it is not demonstrated that the process specified in claim 1 imparts any distinguishing feature to the claimed shampoo.

- 2.4 Consequently, the sole differentiating feature of claim 1 over the teaching of D14/D14b is the presence of a hydrophobic particulate. No effect is shown to arise from this differentiating feature. The example of the patent (see paragraphs [0080]-[0085]) compares a composition of the invention with a composition lacking any component (i), (ii) or (iii). This comparison cannot establish any effect of the replacement of a particulate with a hydrophobic particulate.
- 2.5 The objective technical problem to be solved is the provision of an alternative aqueous conditioning shampoo.
- 2.6 The use of a mineral clay modified by a quaternary ammonium salt cationic surfactant is suggested in D14 (see D14b, [0038]). Such modified clays must be regarded as hydrophobic particulates in the sense of the patent. This is because paragraph [0034] of the patent teaches that "hydrophobically-modified clays are derivable from clays by modification of the clay with a hydrophobic material", typically with "organic cations" where the "cationic group is preferably a quaternary ammonium group".

2.7 According to the respondents, the skilled person could, but would not necessarily provide the composition of D14b with a hydrophobic particulate. However, in the Board's opinion, the arbitrary selection of hydrophobic particulates from the limited number of alternatives given in D14 (see paragraph [0038]), in the absence of associated technical effect, cannot be regarded as inventive. The fact that other particulates are considered in D14 has no bearing on the obviousness of the selected option.

2.8 Lastly, the Board notes that the opposition division acknowledged an inventive step because the prior art did not motivate the skilled person to prepare the gel network by the procedure specified in claim 1. The Board does not share this opinion. As explained above, claim 1 relates to a product *per se*. Therefore, only product features following from the process features, if any, can be taken into account. The obviousness of the process steps themselves does not play a role in the assessment of inventive step for the product. Since they do not impart the claimed shampoo with any distinctive properties, these process steps do not contribute to the inventive step of the shampoo.

2.9 Accordingly, the subject-matter of claim 1 of the main request does not involve an inventive step.

3. Auxiliary requests 1-3, inventive step

3.1 Claim 1 of auxiliary request 1 additionally requires that "the quaternary ammonium compound is added after the hydrophobic particulates". This feature defines a further process step which is not shown to impart any additional characteristics to the resulting shampoo and thus does not further differentiate it from the shampoo

of D14. Hence this amendment does not modify the assessment of inventive step.

3.2 Claim 1 of auxiliary requests 2 and 3 further contain the feature that "the hydrophobic particulates are selected from hydrophobically modified natural clays and synthetic clays". These particulates correspond to those suggested in D14 (see 2.6 above).

3.3 Accordingly, the subject-matter of claim 1 of each of auxiliary requests 1-3 lacks an inventive step.

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:



B. Atienza Vivancos

D. Boulois

Decision electronically authenticated