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Datasheet for the decision of 20 January 2010

Case Number: T 0596/06 - 3.3.06

Application Number: 95870104.7

Publication Number: 0763592

IPC: C11D 3/00

Language of the proceedings: EN

Title of invention:
Stabilised fabric softening compositions

Patentee:
THE PROCTER & GAMBLE COMPANY

Opponent:
Henkel AG & Co. KGaA
Unilever PLC

Headword:
Liquid softener/PROCTER

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 56

Keyword:
"Inventive step - no: arbitrary choice"

Decisions cited:
-

Catchword:
-

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Case Number: T 0596/06 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 20 January 2010

Appellant: (Opponent II)	Unilever PLC Unilever House Blackfriars London EC4P 4BQ (GB)
Representative:	Elliot, Peter William Unilever Patent Group Colworth House Sharnbrook Bedford MK44 1LQ (GB)
Respondent: (Patent Proprietor)	THE PROCTER & GAMBLE COMPANY One Procter & Gamble Plaza Cincinnati, OHIO 45202 (US)
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Other Party: (Opponent I)	Henkel AG & Co. KGaA VTP Patente D-40191 Düsseldorf (DE)
Representative:	-
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted 23 February 2006 concerning maintenance of European patent No. 0763592 in amended form.**

Composition of the Board:

Chairman: P.-P. Bracke
Members: P. Ammendola
J. Geschwind

Summary of Facts and Submissions

I. This appeal is from the interlocutory decision of the Opposition Division concerning the maintenance in amended form of European patent No. 0 763 592, relating to a stabilised liquid fabric softening composition (hereinafter LFSC) comprising, among others, a biodegradable fabric softening compound (hereinafter SC) and a fatty acid (hereinafter FA).

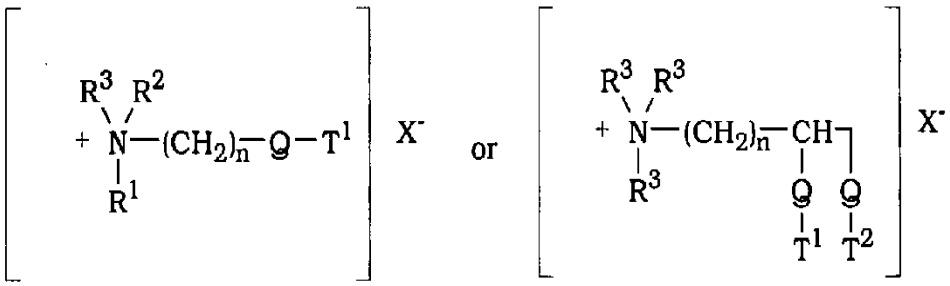
II. Two Opponents had sought revocation of this patent on the grounds of Article 100(a) EPC 1973 by referring to, *inter alia*, document

R2 = WO 94/20597.

III. During the opposition proceedings the Patent Proprietor filed, *inter alia*, an amended version of the patent as auxiliary request.

Claim 1 of this auxiliary request (hereinafter **claim 1 as maintained**) read:

"*1. A liquid fabric softening composition comprising*
a) one or more biodegradable fabric softening compounds,
b) one or more fatty acid compounds,
c) inorganic viscosity control agents,
wherein the ratio of said fabric softening agents to said fatty acid compounds is from 20:1 to 15:1, wherein said biodegradable fabric softening compounds are selected from biodegradable quaternary ammonium compounds of formula:



(I) (II)

Q is selected from -O-C(O)-, -C(O)-O-, -O-C(O)-O-,
R^1 is $(CH_2)_n$-Q-T^2 or T^3;
R^2 is $(CH_2)_m$-Q-T^4 or T^5 or R^3;
R^3 is C_1-C_4 alkyl or C_1-C_4 hydroxyalkyl or H;
T^1, T^2, T^3, T^4, T^5 are independently C_{11}-C_{22} alkyl or alkenyl;
n and m are integers from 1 to 4; and
X^- is a softener-compatible anion,
wherein said fabric softening composition further comprises
d) a perfume in a ratio of perfume to said total amount of biodegradable fabric softening components and fatty acid components of 1:20 to 1:2."

IV. In its decision, the Opposition Division found that the amended version of the patent according to the auxiliary request met the requirements of the EPC.

The Opposition Division considered, *inter alia*, that the subject-matter of claim 1 as maintained solved the technical problem of providing a stabilised perfume-containing LFSC. Although also document R2 related to LFSCs showing excellent storage and viscosity stability and although it was theoretically possible to arrive from this citation at a SC:FA ratio within the claimed

range of from 20:1 to 15:1, such prior art would not lead a skilled person to select such a ratio in order to stabilize perfume-containing LFSCs. Hence, document R2 was found not relevant for the inventive step assessment of the subject-matter claimed in the auxiliary request.

V. Opponent II (hereinafter Appellant) lodged an appeal against this decision. It filed some experimental data with the grounds of appeal.

The Patent Proprietor (hereinafter Respondent) filed experimental data under cover of its reply to the grounds of appeal.

Opponent I, who is party as of right to these proceedings, filed no written submissions.

Oral proceedings took place on 20 January 2010 in the announced absence of the Appellant and of Opponent I.

VI. The Appellant only disputed the inventiveness of the subject-matter of claim 1 as maintained in view of document R2.

In its opinion the Opposition Division erred in assuming that the claimed SC:FA ratio would provide improved stabilisation to perfume-containing LFSCs. Such assumption would not only be insufficiently supported by the only example in the patent but also proven invalid over the whole claimed range by the experimental data enclosed to the grounds of appeal.

Hence, and since the LFSCs of claim 1 as maintained would be wholly within the general disclosure of document R2 and comprised known components in known ranges, the claimed subject-matter merely represented an arbitrary selection which would be within the scope of routine procedures and obvious to a skilled in the art.

VII. The Respondent argued in writing and orally as follows.

Document R2 could represent a suitable starting point for the assessment of inventive step.

The experimental data provided by the Respondent with its reply to the grounds of appeal would confirm the surprising technical effect already proven by the patent example, i.e. the improved storage stability of the claimed compositions even at high temperatures, in comparison to LFSCs not containing any FA.

On the contrary, the experimental data filed by the Appellant represented no reliable and relevant evidence, because:

- the partially described experiments could not be reproduced due to the absence of necessary information as to what the abbreviated term indicating the used softening compound stood for,

- mixed effects resulting in the reported stability results could be due to the presence of ingredients which would not be mandatory in the definition of claim 1 as maintained and possessed a notorious impact on viscosity stability,

- the viscosity data reported by the Appellant had been measured at very high shear rates, i.e. under conditions not representative of the shear rate encountered when pouring the LFSC in a normal home usage environment and also indicated in the patent example,

and

- the observed results were in part indicative of degradation due to the chosen aging conditions and in part contradictory.

Therefore, there would be no reason to doubt that the whole subject-matter of claim 1 as maintained solved the objective technical problem underlying the present invention, which comprised the provision of a perfumed LFSC possessing the right viscosity and displaying viscosity stability upon storage despite the presence of high perfume content.

The Respondent stressed that document R2 contained no pointer leading a skilled person to select a SC:FA ratio of from 20:1 to 15:1 in order to stabilize perfume-containing LFSCs. Indeed, this reference would be focused on the nature of the SC and mentioned FAs just as one of the possible alternatives for the optional viscosity modifier ingredient. Only Example XIV of this citation expressly described LFSCs comprising all the four components that were mandatory in the compositions of the present invention. However, of the seven LFSCs described in this Example, only the sample identified by the "*Process Key*" nr.7

(hereinafter sample XIV-7) and which was totally free of FA, possessed the most stable viscosity. The six remaining FA-containing LFSCs of Example XIV, (hereinafter samples XIV-1 to XIV-6) were manifestly less satisfactory. In particular, the sample more rich in FA, i.e. sample XIV-1 displayed immediately after its preparation a cream aspect and was, thus, clearly unacceptable. Accordingly, the skilled person would certainly not derive from document R2 that FA would be beneficial to the viscosity properties of LFSCs containing perfume. On the contrary, this citation would direct the skilled person to the non-use of any optional fatty acid component in LFSCs.

VIII. The Appellant requested only in writing that the decision under appeal be set aside and that the European patent No. 0 763 592 be revoked.

The Respondent requested in writing and orally that the appeal be dismissed.

Reasons for the Decision

1. *Claim 1 as maintained: inventive step (Article 100(a) EPC 1973 in combination with Article 52(1) EPC 2000 and with Article 56 EPC 1973)*

1.1 The claim (see above section III of the Facts and Submissions) defines a LFSC comprising

a) SC of the formula (I) or (II),

b) FA,

c) inorganic viscosity control agent and

d) perfume,

wherein the SC:FA ratio is from 20:1 to 15:1 and the perfume:(SC+FA) ratio is from 1:20 to 1:2.

1.2 The Appellant has argued that the claimed subject-matter would be obvious for the skilled person starting from the disclosure of document R2.

Also the Respondent has considered this prior art as a possible starting point for the assessment of inventive step.

1.2.1 The Board notes that document R2 addresses substantially the same technical problem mentioned in the patent-in-suit, i.e. that of rendering available a perfumed LFSC with excellent viscosity stability upon storage (compare, in particular, paragraph [0006] of the patent-in-suit with document R2, from page 13, line 23 to page 14, line 11). Moreover, this citation undisputedly discloses, *inter alia*, all four ingredients that are mandatory according to the presently claimed invention (see in document R2 claim 3 in combination with the description from page 13,

line 23 to page 14, line 11; page 20, lines 21 to 24; and page 32, lines 18 to 23). However, a specific disclosure of these four ingredients in combination is only given in samples XIV-1 to XIV-6 of Example XIV at pages 44 to 46 of document R2.

Hence, the Board finds that the suitable starting point for the assessment of inventive step may be **any of samples XVI-1 to XVI-6 of document R2**

1.2.2 The LFSCs of claim 1 as maintained only differ from this prior art in that they require larger amounts of FA and of perfume in respect of the SC amount. Indeed, in sample XIV-1 the SC:FA ratio is 21.3:1 and the perfume:(SC+FA) ratio is 1:24.8. Similarly, in samples XIV-2 to XIV-6 the SC:FA ratio is 128:1 and the perfume:(SC+FA) ratio is 1:23.9

1.3 The Board finds convincing some of the Respondent's objections (mentioned in section VII of the Facts and Submission) for disputing the credibility and the relevance of the data filed by the Appellant with the grounds of appeal. Therefore, the Board considers unproven the Appellant's allegation that the technical effect demonstrated by the sole example in the patent-in-suit would not occur over the whole range claimed. Since the Appellant has provided no reply to such objections and in view of the outcome of the present decision favourable to the Appellant, no further details need to be given in this respect.

The Board, however, also notes that the sole advantageous technical effect demonstrated by the patent example, is not relevant in respect of the prior

art identified above. Indeed, the patent-in-suit acknowledges document R2 as background art (see page 2, lines 27 to 28), but does not qualify the viscosity and stability properties of the LFSCs of the invention as improved in respect of this prior art (see e.g. paragraphs [0004] to [0006]). On the contrary, the sole advantageous technical effect mentioned in the patent-in-suit is that described in the example (see paragraph [0093]), i.e. a "*better storage stability*" of the LFSCs of the invention **in comparison to similar compositions free of FA**.

Even the additional experimental comparisons filed with the Respondent's reply to the grounds of appeal only demonstrate the superior stability and viscosity properties of claimed LFSCs vis-à-vis those of similar comparative LFSCs free of FA.

Hence, no criticality of the claimed ingredient ratios in respect to the prior art compositions **containing FA and perfume at different ratios,** is explicitly or implicitly disclosed in the patent-in-suit or is proven by means of the evidence additionally filed by the Respondent.

Accordingly, the Board has no reason to presume that the claimed LFSCs achieve viscosity and stability properties superior to those of the samples XIV-1 to XIV-6 of document R2. Under such circumstances, the technical problem credibly solved by the claimed subject-matter vis-à-vis the prior art is just the provision of further stabilised perfume-containing LFSCs, i.e. the provision of an alternative to the prior art.

1.4 The assessment of inventive step boils down to the question as to whether the skilled person searching for further LFSCs comparable to those of the prior art, would have reasonably expected that the stability properties of this prior art would be retained even in LFSCs wherein the amounts of SC, FA and perfume comply with the ratios required in claim 1 as maintained.

1.4.1 In the opinion of the Board the skilled reader of document R2 would necessarily expect that the amounts of SC, FA and perfume used in the LFSCs of samples XIV-1 to XIV-6 of document R2 could be freely varied within the respective FA and SC percent ranges disclosed e.g. in claim 3 and perfume amount range described at page 32, lines 18 to 23, of the same citation.

It is undisputed that the percent ranges in document R2 also embrace amounts of the relevant ingredients that also comply with the requirements in present claim 1 that the SC:FA ratio must be from 20:1 to 15:1, and that the perfume:(SC+FA) ratio must be from 1:20 to 1:2. (For instance, these ratios would already be satisfied by just reducing the amount of SC present in samples XIV-2 to XIV-6 to the minimum of 5 Wt.% disclosed for this ingredient in claim 3 of document R2.)

Hence, the Board finds that to arrive at the presently claimed subject-matter the skilled person only needs to make an **arbitrary** choice, deprived of any inventive merits, among the amounts of SC, FA and perfume ingredients possibly embraced by the disclosure of document R2.

1.4.2 The Respondent has maintained that inventive ingenuity would instead be required for making such choice since:

a) both FA and perfume are disclosed in document R2 only as optional ingredients,

b) the skilled reader of document R2 would derive from the comparison between sample XIV-7 and samples XIV-1 to XIV-6 that the presence of fatty acid is detrimental to the viscosity required for LFSCs and to their stability

and

c) document R2 would contain no pointer to the relative amounts of the ingredients required for satisfying the ratios defined in claim 1 as maintained.

Hence the skilled person could have arrived at the presently claimed subject-matter only with hindsight.

1.4.3 As to the above argument "a)" the Board notes that the description of document R2 expressly indicates that perfume-containing LFSCs - in particular at high SC and perfume concentrations - require a "*concentration aid*" in order to be more stable in terms of viscosity and/or to avoid phase separation, and that the preferred concentration aid for scented LFSCs are FAs (see in document R2 from page 13, line 23 to page 14, line 11, and page 20, lines 22 to 23). Hence, document R2 expressly suggests that among the compositions disclosed therein those containing perfume are more stable if they also comprise a FA. This teaching is unaffected by the fact that document R2 requires

neither FAs nor perfumes to be mandatory ingredients. This latter only confirms that this citation is **also** directed to other sorts of compositions, possibly unscented and/or less stable (see e.g. page 13, lines 21 to 23).

1.4.4 As to the above argument "b)" the Board finds that no sound conclusion as to the positive or negative influence of FA on the storage stability can be derived from the initial and aged viscosity values reported in the Table at page 46 of document R2 for samples XIV-1 to XIV-7.

Indeed, the skilled reader of such Table immediately notes not only that **each** of these seven samples has been obtained by using a **distinct** preparation process, but also that the measured initial and aged viscosity values **depend considerably** on the specific preparation processes used. In particular, this latter is apparent from the considerable differences in the viscosity data reported for LFSCs possessing the same overall chemical composition and, thus, only differing for their preparation processes (compare the results observed in sample XIV-2 with those of sample XIV-3, both presenting the same overall chemical composition "II", as well as the results observed for samples XIV-4 to XIV-6, all three of composition "III"). Hence, the skilled reader of such Table cannot make any sound conclusion as to which changes in the chemical composition influence positively (or negatively) the viscosity of the resulting LFSC and its stability.

Therefore, the Board, while concurring with the Respondent that the data reported in Example XIV of

document R2 do **not** demonstrate any positive influence of FA onto the storage stability of LFSCs, finds also that the same data **can neither** provide conclusive evidence that the presence of FAs is detrimental to the viscosity properties required for LFSCs.

Under these circumstances, the sole sound disclosure as to the effect of FA ingredients onto the storage stability of LFSCs that is provided by document R2 remains that summarized above at point 1.4.3, i.e. that FAs are the concentration aids to be preferred for rendering particularly stable LFSCs containing perfume.

1.4.5 As to the above argument "c)", the Board concurs with the Respondent that document R2 does not contain any pointer suggesting specifically to the skilled person to choose any of those ingredient amounts that would also comply with the ingredient ratios defined in claim 1 as maintained. Nevertheless, such amounts are among those that are embraced by the disclosure of document R2 and, thus, also implicitly qualified therein as suitable for retaining the excellent stability of the LFSCs of this prior art. The Board considers that the mere existence of other equally obvious alternative solutions to the posed problem does not render inventive the claimed group thereof because, even in the absence of any specific reason (the missing pointer) for preferring one or the other, the arbitrary selection of any obvious solutions to the posed problem among those that are equally suggested to the skilled person requires no particular skills and, for this reason, does not involve an inventive step.

1.5 Accordingly, the Board concludes that the subject-matter of claim 1 as maintained does not involve an inventive step. Hence, the patent as amended during the opposition proceedings is found not to comply with the requirements of Article 56 EPC 1973 and must be revoked.

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:

G. Rauh P.-P. Bracke