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Datasheet for the decision of 28 May 2010

Case Number: T 1630/07 - 3.3.06

Application Number: 01909667.6

Publication Number: 1254203

IPC: C11D 3/04

Language of the proceedings: EN

Title of invention:
Fabric conditioning compositions

Patentees:
Unilever PLC, et al

Opponent:
Henkel AG & Co. KGaA

Headword:
Fabric conditioner/UNILEVER

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 54(1)(2), 56

Keyword:
"Novelty (yes): Twofold selection"
"Inventive step (yes): undisclosed effect"

Decisions cited:
T 0332/87

Catchword:
-

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Case Number: T 1630/07 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 28 May 2010

Appellant: (Opponent)
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Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 1 August 2007 concerning maintenance of European patent No. 1254203 in amended form.

Composition of the Board:

Chairman: P.-P. Bracke
Members: P. Ammendola
U. Tronser

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. 1 254 203 according to the then pending main request of the Patent Proprietors.

II. The Opponent had sought revocation of the granted patent on the grounds of lack of novelty and inventive step. It had cited in support of its arguments, *inter alia*, the document

(6) = EP 0 728 737,

as well as T 332/87 (unpublished in the OJ of EPO).

III. The main request filed by the Patent Proprietors during the opposition proceedings comprised nine claims (hereinafter claims as maintained).

Claims 1, 8 and 9 as maintained read, respectively:

"*1. A fabric conditioning composition comprising an ester-linked quaternary ammonium cationic fabric softening compound dispersed in water, the water having dissolved therein at least one alkali metal or alkaline earth metal sulphate, the composition further comprising an unsaturated C_8-C_{24} fatty acid wherein the weight ratio of the quaternary ammonium compound to the unsaturated fatty acid is greater than 10:1.*"

"*8. A rinse conditioner comprising the fabric conditioning composition of any one of claims 1 to 7.*"

"*9. Use of at least one alkali metal or alkaline earth metal sulphate to improve the low temperature viscosity stability characteristics of a rinse conditioner composition comprising an ester-linked quaternary ammonium cationic fabric softening compound dispersed in water.*"

The maintained claims 2 to 7 defined preferred embodiments of the fabric conditioning composition (hereinafter FC composition) of claim 1.

IV. The Opposition Division decided, *inter alia*, that the ruling given in the case of T 332/87 did not allow to combine within document (6) the disclosure of example 2-3 (or 2-15) with that of the optional use of inorganic electrolytes such as, among others, sodium, magnesium or calcium sulphates, because the specific examples 2-3 and 2-15 differed from other examples e.g. for the additional presence of a fatty acid, and thus could not be seen as illustrative of the general teaching in such citation. To arrive at the claimed subject-matter required hence the combination within document (6) of one of the examples given for the FC composition disclosed in this citation with one of the optional inorganic electrolyte ingredients exemplified in the description. Thus, applying the "*selection within two lists*" principle, the Opposition Division acknowledged the novelty of the claims as maintained vis-à-vis document (6).

As to the assessment of inventive step, the Opposition Division considered that the technical problem underlying the patent-in-suit was that of avoiding the viscosity drift upon storage in FC compositions based on aqueous suspensions of ester-linked quaternary ammonium cationic fabric softening compounds (hereinafter these compounds are indicated by their conventional name of esterquats). It concurred with the parties that document (6) represented the closest state of the art and considered that the experimental data in the Table of paragraph [0075] of the patent-in-suit and, particularly, the comparison between the viscosity values after storage reported therein for example 12 and the comparative example A, proved that the claimed FC compositions possessed, due to presence of the alkali metal or alkaline earth metal sulphate, an impressively improved viscosity stability. The Opposition Division considered therefore that the claimed FC composition solved vis-à-vis the prior art the posed technical problem. Since none of the available citations suggested a positive effect of alkali metal or alkaline earth metal sulphate on viscosity stability of esterquats suspensions, the subject-matter claimed in the maintained claims was found based on an inventive step.

V. The Opponent (hereinafter Appellant) lodged an appeal against this decision.

VI. The Appellant contested in writing and orally only the novelty and the inventiveness of claim 1 as maintained by relying, in essence, only on the disclosure provided by document (6).

In its opinion, example 2-3 and 2-15 of this citation were representative of the general technical teaching of document (6) despite the presence therein of the optional unsaturated fatty acid, because this was perfectly in line with the disclosure in this citation as to the sorts and the relative amounts of the essential and optional ingredients, as well as with the common general knowledge of the skilled person on how to control the equilibrium of saponification of esterquats suspended in waters. Hence, similarly to the case of T 332/87, it was perfectly allowable to combine any of these examples with the optional incorporation of inorganic electrolytes such as, among others, sodium, magnesium or calcium sulphates, also disclosed in document (6). Accordingly, one arrived at the claimed subject-matter by the single selection of one of the sulphate salts from the list of examples of the inorganic electrolytes.

As to the issue of inventive step, the Appellant concurred with the Opposition Division that document (6) represented the appropriate starting point. It argued, however, that the differences in viscosity values upon storage between example 12 containing sodium sulfate and comparative example A containing calcium chloride were possibly due to their other differences in chemical compositions, rather than necessarily to the different kind of inorganic salt. Even the examples of the invention 6 and 7, that were most similar to comparative example A, allowed no reliable conclusion on the effect of sodium sulphate on viscosity, since they also comprised sodium chloride which could be the only source of the measured differences vis-à-vis comparative example A. Hence, the viscosity data

reported in the patent-in-suit represented no conclusive evidence that sodium sulphate exercised a stabilizing effect against the viscosity drift occurring upon storage in FC compositions containing esterquats. Rather to the contrary, the comparison of examples 10, 11 and 12 in terms of viscosity values after 5 weeks aging at 0°C and 37°C expressed as percents of the corresponding values measured after one week of aging at room temperature, suggested that sodium chloride was more beneficial to the viscosity stability than sodium sulphate.

The Appellant concluded therefore that the subject-matter claimed only solved in an obvious manner the technical problem of providing an alternative to the compositions disclosed in document (6). It argued further that, in the event that the Board nevertheless considered credible that inorganic sulphates exercised a beneficial effect on the viscosity stability of FC compositions based on esterquats, such an effect was already implicitly suggested in the disclosure in document (6) that inorganic electrolytes could be used to adjust the viscosity of these compositions.

VII. The Patent Proprietors (hereinafter Respondents) refuted these arguments by relying in essence on the same reasons given by the Opposition Division in the decision under appeal.

VIII. The Appellant requested that the decision under appeal be set aside and the patent be revoked.

The Respondents requested in writing that the appeal be dismissed.

Reasons for the decision

1. Novelty (Article 54(1) and (2) EPC (1973)): claim 1

1.1 This claim defines a FC composition comprising a water dispersed esterquat, an alkali metal or alkaline earth metal sulphate and an unsaturated C_8-C_{24} fatty acid at a given esterquat / fatty acid ratio (see section III of the Facts and Submissions above).

1.2 The Appellant has disputed the novelty of this claim only on the basis of document (6).

It has considered erroneous the conclusion of the Opposition Division that the example 2-3 and 2-15 was not representative of the general technical teaching of document (6) for the reasons already indicated above (see section VI of the Facts and Submissions).

Hence, in the opinion of Appellant, it was allowable under the ruling given in T 322/87 to combine within document (6) the disclosure of the FC composition of example 2-3 (or 2-15) with that of the optional incorporation therein of inorganic electrolytes as disclosed in the passage at page 11, lines 48 to 51, (hereinafter indicated as the **cited passage**) and reading "*The composition of this invention can incorporate therein such an inorganic electrolyte as NaCl, $CaCl_2$, $MgCl_2$, $NaNO_3$, $NaNO_2$, Na_2SO_4, $MgSO_4$, or $CaSO_4$ for the adjustment of the viscosity thereof. …*". This combination thus rendered available to the skilled person a FC composition as that of example 2-3 added

with any of these specific examples of inorganic electrolyte ingredients. Accordingly, one arrived at the claimed subject-matter by means of **a sole selection in a list of alternatives**, that required for selecting any of the three exemplified sulphate salts.

1.3 The Board notes that the decision T 332/87 (see therein point 2.2. of the reasons), after having recalled that normally the disclosure of a document has to be considered as a whole, rules that "*the technical teaching of examples may be combined with that disclosed elsewhere in the same document, e.g. in the description of a patent document, provided that the example concerned is indeed representative for the general technical teaching disclosed in the respective document*".

It is thus immediately apparent to the Board that the situation decided in this case law is at most comparable to just a segment of the whole Appellant's line of reasoning based on document (6). Indeed, in the present case, as explicitly acknowledged by the Appellant too (see e.g. the last sentence of the section on novelty of the grounds of appeal), the relevant point is **not just** whether the prior art patent document renders available to its skilled reader the combination of an example with a generally applicable instruction (that to possibly add an inorganic electrolyte) also contained in this patent document, but rather if it renders available this combination **as well as** the further needed selection within such combination (i.e. the selection of the sulphates among the exemplified inorganic electrolytes).

Moreover, the Board notes that document (6), which is essentially concerned with esterquats and liquid softening compositions containing them, teaches that several optional components may be incorporated in such compositions. In particular, it is disclosed on page 8, line 32 to page 11, line 47 of this citation that the esterquat compositions may further comprise one of several components for improving certain properties. One of those components is a fatty acid for enhancing the softness and only examples 2-3 and 2-15 are describing such compositions in a ratio esterquat / fatty acid according to present claim 1.

Thus, as observed by the Opposition Division, the example 2-3 (or 2-15) cannot be considered representative for the general technical teaching of document (6), but just for a specific embodiment thereof, which may only be derived from document (6) by selecting one of the possible optional components.

Hence, the Board finds that the whole line of argument of the Appellant cannot possibly be justified by just the ruling in T 332/87, and that the segment of this line of argument most similar to that considered in this decision is not supported by this case law.

1.4 The Board notes instead that the skilled reader of document (6), in order to arrive at the disclosure of the subject-matter of claim 1 as maintained, must (at least) first select example 2-3 (or 2-15) among the examples representative for specific embodiments disclosed therein, and then select any of "*Na_2SO_4, $MgSO_4$, or $CaSO_4$*" among the specific examples of the optional inorganic electrolytes listed in the cited passage.

Thus, the Board finds that the present case is rather to be decided according to the established case law already recalled in the decision under appeal, i.e. by taking into account that a prior art document does not render available matter whose identification requires **twofold selection** among two lists of alternatives in that document (see Case Law of the Board of Appeal, 5th Edition, 2006, I.C.4.2.3).

1.5 Therefore, the Board concurs with the finding of the Opposition Division that the subject-matter of claim 1 as maintained is novel vis-à-vis the disclosure of document (6), and concludes, thus, that this claim complies with the requirements of Article 54(1) and (2) EPC (1973).

2. Novelty (Article 54(1) and (2) EPC (1973)): claims 2 to 9

2.1 The same reasoning given above as to the absence in document (6) of direct and unambiguous disclosure of a FC composition comprising an esterquat, a fatty acid and an alkali metal or alkaline earth metal sulphate, applies manifestly not only to the subject-matter of claims 2 to 7 as maintained, all directed to preferred embodiments of the FC composition of claim 1, but also to that of claim 8 as maintained (see section III of the Facts and Submissions above), which defines a rinse conditioner comprising the FC composition of claim 1.

2.2 The Appellant has made no submissions as to the novelty of claim 9 as maintained, which defines the use of an alkali metal or alkaline earth metal sulphate to

improve the low temperature viscosity stability of a rinse conditioner containing an esterquat dispersed in water (see section III of the Facts and Submissions above).

The Board notes that the cited passage of document (6) (see point 1.2 above) discloses the use of sulphate inorganic electrolytes in FC compositions containing esterquats, only as **viscosity adjusters**. The Appellant's argument (presented during the discussion on inventive step) that the expression "*for the adjustment of the viscosity*" in the cited passage (see point 1.2 above) necessarily implied also the ability of acting as viscosity stabilizer, is found not convincing. As a matter of fact, document (6) makes a clear distinction between adjusting the viscosity and improving the viscosity stability, thereby expressly indicating as such the components capable of reducing the viscosity drift (see in document (6) e.g. page 8, lines 48 to 50; and page 8, line 55 to page 9). Moreover, document (6) does not even mention specifically the stability of the viscosity at low temperatures.

Hence, the prior art referred to by the Appellant as novelty destroying for claim 1 does not anticipate the subject-matter of claim 9 either.

2.3 Therefore, the subject-matter of the maintained claims 2 to 9 is also found to comply with the requirements of Article 54(1) and (2) EPC (1973).

3. Inventive step (Article 56 EPC (1973)): claim 1 as maintained

3.1 The patent-in-suit identifies the technical problem underlying the invention as that of rendering available a FC composition with improved viscosity stability upon storage, in particular against the viscosity drift occurring al low temperatures that can render the FC composition initially non-pourable and then a gel that cannot be redispersed (see paragraphs [0003], [0010] to [0012] and [0078] of the patent as granted).

Hence, the Board sees no reason to depart from the findings of the Opposition Division, undisputed by the Appellant, that:

- the FC compositions with fully satisfactory quality in terms of stability in storage disclosed in document (6) represent the suitable starting point for the purpose of assessing inventive step (see in this citation, in particular, claim 8 and the disclosure of the prevention of gelation upon storage attributed to the optional ingredients "*(D)*" and "*(E)*" from page 8, lines 48 to page 9, lines 2, and at page 12, lines 11 to 13)

and

- the sole difference between the FC composition of claim 1 as maintained and the FC compositions of example 2-3 or 2-15 in this citation consists in the mandatory presence in the former of the alkali metal or alkaline earth metal sulphate.

3.1.1 The Appellant has considered the experimental data contained in the table of paragraph [0075] of the patent-in-suit insufficient for rendering credible that the presence of a sulphate salt in the exemplified FC compositions favour their viscosity stability upon storage.

In particular, in the opinion of this Party, example 12 and the comparative example A could not be compared, since they differed not just in the nature of the inorganic salt (sodium sulphate in example 12 vs. calcium chloride in the comparative example A) but also for the additional presence in the comparative example A of an unsaturated fatty acid and of a nonionic surfactant, as well as for the use of a different esterquat.

Even the comparison between comparative example A and the examples of the invention most similar thereto, i.e. examples 6 and 7, represented no conclusive evidence of the alleged effect of sodium sulphate alone, since these latter also comprised sodium chloride which could be essential or the only source of the observed differences in viscosity.

The Appellant has considered possible that the minimalistic difference of viscosity after 5 weeks at 0°C between examples 6 and 7, possibly suggesting that sodium sulphate is more effective than sodium chloride, could just be an experimental artefact. Instead, the comparison of examples 10, 11 and 12 in terms of viscosity values after 5 weeks aging at 0°C and 37°C expressed as percents of the value measured after one week of aging at room temperature, would suggest that

sodium chloride was more beneficial to the viscosity stability than sodium sulphate.

The Appellant has concluded therefore that the subject-matter claimed only credibly solved the technical problem of providing an obvious alternative to the compositions disclosed in document (6), arbitrarily selected within the general disclosure of this citation.

It has argued further that, in the event that the Board nevertheless considered credible that inorganic sulphates exercised some beneficial effect on the viscosity stability of esterquats compositions, such an effect was already implicitly suggested by the disclosure in document (6) that inorganic electrolytes can be used to adjust the viscosity of these compositions.

3.1.2 The Board notes that all the FC compositions of the table of paragraph [0075] that contain sodium sulphate (even that of example 12 where sodium sulphate is the sole salt present) reach upon storage at 0°C a viscosity that is less than half of the viscosity of comparative example A containing calcium chloride as the sole inorganic salt. However, as correctly observed by the Appellant, most of these results refer to compositions differing in more than one aspect (ingredient and/or ingredient's amount), rather than just in the replacement, in part or in full, of e.g. the calcium chloride present in comparative example A with a corresponding amount of an inorganic sulphate according to the invention.

The Board concurs therefore with the Appellant that comparative example A, the sole free of any sulphate, can be reliably compared only with examples 6 and 7, and that such comparison only demonstrates that the combined use of sodium sulphate **and** sodium chloride provides impressive advantages in viscosity stability, in particular after storage at 0°C.

Nevertheless, it is also possible to reliably compare with each other examples 6 and 7, differing only in that the former comprises 0.8% of sodium sulphate and 0.4% of sodium chloride and the latter contains 0.6% of sodium sulphate and 0.6% of sodium chloride. It can be derived from this comparison that the sample richer in sodium sulphate shows after 5 week storage at 0°C a (minimally) lower viscosity (100 mPa.s *vs*. 101 mPa.s).

The Board finds therefore that the data reported in the table of paragraph [0075] demonstrate that sodium sulphate favours, at least in the presence of sodium chloride, the viscosity stability of FC compositions more than calcium chloride. Hence, there is no apparent contradiction between these data and the overall teaching in the patent-in-suit that alone the sulphates of alkali and alkali earth metals provide such stabilization.

3.1.3 The Board considers instead unconvincing the Appellant's argument that the comparison of the examples 10, 11 and 12, not in terms of their absolute viscosity values as measured, but in terms of their percent increments, would prove that sodium sulphate is possibly less effective than sulphate chloride - and thus, also possibly less effective than calcium

chloride - as viscosity stabilizer. Indeed, the examples 10-12 differ from each other not only in the kind of salt ingredient but also in the amount of esterquats and/or in the total amount of salts, hence they represent no source of univocal information as to the contribution of each difference on the measured viscosity. Moreover, the Appellant's argument is based on the viscosity values measured after 5 weeks aging at 0°C or 37°C, converted into percents of the viscosity values **measured after one week aging at room temperature** and, thus, the resulting ranking might be different from that possibly observable when considering the percent viscosity increase in respect of e.g. the initial viscosities of the freshly prepared samples (undisclosed in the patent-in-suit). Finally, it is not apparent for which reasons the Appellant considers the ranking of the results in terms of percent viscosity increase more meaningful than that derivable from the measured viscosity values as such. Indeed, it is reasonable to presume that the negative phenomena of gelation or lack of pourability start at certain viscosity values, i.e. independently on the initial viscosity, and not that they appear at given percents of increase of the initial viscosity. Nor is it apparent to the Board that a viscosity stabilizer must necessarily produce an effect that is proportional to the initial viscosity rather that e.g. just reduce the absolute speed with which the viscosity increases with time and/or possibly set a maximum value to the achievable viscosity, independently on the initial viscosity of the freshly prepared FC composition.

3.1.4 In conclusion, the experimental data in the table of paragraph [0075] are certainly compatible with a

stabilizing effect provided by sodium sulphate. Instead, the Appellant's objection to the credibility of this effect is neither based on experimental counter evidence nor on convincing theoretical arguments (justified e.g. by proven common general knowledge or by the existence of contradictions within the patent-in-suit). Under these circumstances, the simple consideration made by this Party that the experimental data in the table of paragraph [0075] are *per se* insufficient for establishing with certainty that sodium sulphate acts as viscosity stabilizer also in the absence of sodium chloride, if found insufficient for depriving of credibility the overall teaching of the patent-in-suit that the alkali metal or alkali earth metal sulphates stabilize the viscosity of FC compositions based on esterquats.

3.1.5 Therefore, the Board has no reason to depart from the finding of the Opposition Division that the subject-matter of claim 1 solves the technical problem addressed in the patent-in-suit, i.e. the provision of (further) FC compositions based on esterquats stabilized against the viscosity drift occurring during storage, in particular during storage at low temperature.

3.2 The Board notes that the sole reference made by the Appellant to information in the prior art possibly relevant to an effect of the inorganic sulphates onto the viscosity drift of FC compositions, is the reference to the expression "*for the adjustment of the viscosity*" in the cited passage of document (6). However, the Board finds for the same reasons already indicated above at point 2.2 that this expression does

not imply that the inorganic electrolytes listed in the cited passage are also able to act as viscosity stabilizers.

3.3 Hence, in the opinion of the Board, a person skilled in the art starting from any of examples 2-3 or 2-15 of document (6) has no reason for presuming that the alkali metal or alkali earth metal sulphates exemplified in the cited passage (as inorganic electrolytes suitable for viscosity adjustment) could also be used

- instead of (or in addition to) calcium chloride in order to improve the viscosity stability of that example,

or

- as replacement for the example ingredient(s) (such as the ingredients "*(E)*" and/or "*(D)*") explicitly acknowledged in document (6) as producing viscosity stabilization.

Therefore, the Board finds that the Appellant has not succeeded in rendering credible that the skilled person starting from the prior art, would have arrived to the subject-matter of claim 1 as maintained without exercising inventive ingenuity. Thus, the subject-matter of this claim is found to comply with the requirements of Article 56 EPC (1973).

4. Inventive step (Article 56 EPC (1973)): claims 2 to 9 as maintained

The Board finds apparent that the arguments presented by the Appellant for disputing the compliance with Article 56 EPC (1973) of the subject-matter of claim 1 as maintained fail also in respect to the subject-matter claims 2 to 9 as maintained for substantially the same reasons already given above.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Rauh P.-P. Bracke