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**Datasheet for the decision
of 15 March 2022**

Case Number: T 0798/19 - 3.3.06

Application Number: 13727371.0

Publication Number: 2820114

IPC: C11D3/50, C11D11/00, C11D3/40,
C11D3/12, C11D3/00, C11D17/00

Language of the proceedings: EN

Title of invention:

METHODS FOR PRODUCING LIQUID DETERGENT PRODUCTS

Patent Proprietor:

The Procter & Gamble Company

Opponent:

Henkel AG & Co. KGaA

Headword:

PRODUCING LIQUID DETERGENT/P & G

Relevant legal provisions:

RPBA 2020 Art. 13(2)
EPC Art. 56

Keyword:

Amendment after summons - exceptional circumstances (no)
Inventive step - unexpected improvement shown

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0798/19 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 15 March 2022

Appellant: Henkel AG & Co. KGaA
(Opponent) Henkelstrasse 67
40589 Düsseldorf detergentorf (DE)

Representative: dompatent von Kreisler Selting Werner -
Partnerschaft von Patent- und Rechtsanwälten mbB
Deichmannhaus am Dom
Bahnhofsvorplatz 1
50667 Köln (DE)

Respondent: The Procter & Gamble Company
(Patent Proprietor) One Procter & Gamble Plaza
Cincinnati, OH 45202 (US)

Representative: Gill Jennings & Every LLP
The Broadgate Tower
20 Primrose Street
London EC2A 2ES (GB)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 21 January 2019
rejecting the opposition filed against European
patent No. 2820114 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman J.-M. Schwaller
Members: P. Ammendola
J. Hoppe

Summary of Facts and Submissions

- I. The appeal is against the decision of the opposition division to reject the opposition against European patent no. 2 820 114, claim 1 thereof reading:

"1. A method for producing a liquid detergent product comprising from 5% to 15% by weight of the product of water using a vessel comprising an inlet, an outlet, an agitation device, and a microcapsule mixing zone disposed between the inlet and the outlet, characterized in that the method comprises the steps of:

a) introducing an unstructured liquid detergent precursor into the inlet of the vessel, said unstructured liquid detergent precursor comprising from about 10% to 90%, by weight of the precursor, of a surfactant, and from about 0% to about 15%, by weight of the precursor, of water;

b) mixing an aqueous slurry comprising perfume microcapsules and the unstructured liquid detergent precursor in the microcapsule mixing zone to form a combined microcapsule detergent;

c) adding a structurant to the combined microcapsule detergent downstream of the microcapsule mixing zone to form a liquid detergent product."

- II. The opposition division concluded that the grounds for opposition under Articles 100(a)/56; 100(c) and 100(b) EPC did not prejudice the maintenance of the patent as granted.
- III. In its statement of grounds of appeal the opponent/appellant only disputed the finding of the opposition division that the subject-matter of claim 1 was not

obvious in view of the prior art. It referred in this respect to **D1** (WO 2011/120772 A1) in combination with common general knowledge or the disclosure of **D3** (DE 10 2009 002 174 A1). It also submitted that, contrary to the opposition division's conclusion in the contested decision, the data in **D7** (Expert declaration dated 20 March 2014) would not prove that a reduced aggregation of the perfume microcapsules occurred in the method for producing a liquid detergent product containing perfume microcapsules (hereinafter **PLDP method**) defined in claim 1, vis-à-vis that occurring in the similar prior art method of D1.

- IV. The patent proprietor (hereinafter **respondent**) replied with letter of 19 September 2019 and subsequently filed with letter of 21 July 2020 document **D8** (experimental data report).
- V. After that the parties had been summoned to oral proceedings, the appellant submitted with letter of 17 January 2022 that the method of claim 1 was also insufficiently disclosed and that D8 had been filed unjustifiably late and thus, should not be admitted into the appeal proceedings.
- VI. With letter of 9 February 2022 the respondent requested the board not to take into account the objection of insufficient disclosure under the provisions of Article 13(2) RPBA 2020.
- VII. At the hearing of 15 March 2022 the opponent *inter alia* explained that it merely kept its objection based on D1 as closest prior art in combination with common general knowledge and argued that D3 was only to be considered as a document confirming common general knowledge (that

a structurant could also be added to detergent liquid compositions already comprising perfume microcapsules).

The final requests of the parties were as follows:

The appellant requested that the decision under appeal be set aside and that the European patent be revoked.

The respondent requested that the appeal be dismissed (main request), or auxiliarily, that the patent be maintained in amended form based on auxiliary request 1 filed with letter dated 9 October 2018.

Reasons for the Decision

1. Procedural issues

1.1 Pursuant to Article 13(2) RPBA, any amendment to a party's appeal case made after the notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances.

1.2 In these appeal proceedings the objection of insufficient disclosure under Article 100(b)/83 EPC has been raised for the first time with letter of 17 January 2022, i.e. after the parties had already been summoned to oral proceedings.

As the appellant failed to indicate any circumstance to justify the very late filing of this objection the board, exercising the discretion foreseen in Article 13(2) RPBA 2020, has decided not to take it into account.

- 1.3 The admittance into the appeal proceedings of the experimental data D8, filed by the respondent after that the four month time limit for replying to the grounds appeal had expired, has been disputed by the appellant.

Since a decision in favour of the respondent was reached without considering D8, the board had no reason to decide on the admittance of this document.

2. *Main request (patent as granted) - inventive step*

- 2.1 The closest prior art and the solved technical problem

- 2.1.1 It is undisputed between the parties that the method (to provide a liquid detergent product in which perfume microcapsules were well-dispersed) described in D1 represents the closest prior art.

- 2.1.2 In particular the board finds, as convincingly argued by the respondent, that the prior art of departure can be more specifically identified in the PLDP method described in the sole Example (of the process defined in claim 1) of D1, from page 34, line 22 to the end of page 37.

Also in this prior art a slurry of perfume microcapsules is combined with a liquid detergent precursor; however, in D1 this latter is prepared by using a structurant, i.e. in the PLDP method of D1 a structurant is added in the liquid detergent precursor (thereby forming a structured liquid detergent precursor) before that this latter is combined with the slurry of perfume microcapsules.

Hence, it is apparent and undisputed that the method of claim 1 under consideration differs from this prior art at least in that in the former a structurant is added after that an unstructured liquid detergent precursor has been combined with the slurry of perfume microcapsules (i.e. added to the "*combined composition*", see the last step in claim 1).

As discussed below, this difference is found to render the subject-matter of claim 1 non-obvious in view of the prior art. Hence, the other disputed differences between the patented method and the prior of departure need not to be considered in this decision.

2.1.3 According to the description of the patent in suit, the patent addresses the technical problem of providing a method for producing a liquid detergent comprising perfume microcapsules that prevents the formation of large aggregates of perfume microcapsules (see e.g. the second sentence in paragraph [0005] of the patent in suit).

2.2 The solution

According to the patent in suit, this technical problem is solved by the method defined in claim 1 which requires in particular to combine an unstructured liquid detergent precursor with a slurry of perfume microcapsules and thereafter to add a structurant to such combined composition.

2.3 Success of the solution

2.3.1 The appellant submitted that the subject-matter of claim 1 cannot solve the posed technical problem across its whole breadth because the patent itself showed

substantial difference of dimensions of the aggregates of perfume microcapsules between the micrographs of liquid detergent products of the invention depicted in Figures 3 and 4. It stressed that these figures were described in paragraph [0008] of the patent in suit so as to implicitly link the different dimensions of the aggregates visible therein to the used "low mixing energy" (Figure 3) or "proper mixing energy" (Figure 4). Instead claim 1 would not impose any specific requirement as to the mixing energy to be used in the claimed method.

Nor would D7 demonstrate any advantage of the PDL method of claim 1 vis-à-vis the prior art of departure, as the only directly comparable examples therein allegedly representing the method of claim 1 and that of D1 (i.e. the examples respectively corresponding to the results for "Leg 1" and "Leg 2" in Table 1 of D7) would only demonstrate the effect of a feature different from that distinguishing the patented method from the prior art PLDP method of D1. Indeed, in Leg 1 structurants were added to the slurry of perfume microcapsules and to the combined composition (obtained from the structured slurry and an unstructured liquid detergent precursor), whereas in Leg 2 structurants were added to the liquid detergent precursor and the slurry of perfume microcapsules that were subsequently combined. As the presence of structurant in the slurry of perfume microcapsule was not claimed, the effect demonstrated in D7 by Leg 1 could not be linked to the distinguishing feature.

Hence, the sole technical problem that could be considered plausibly solved by the fact that, differently from the prior art in D1, in the PDL method of claim 1 the structurant is not added to the

liquid detergent precursor before its combination with the slurry of perfume microcapsules, but rather only to the composition resulting from such combination, would be the provision of an alternative to the prior art method of D1.

The appellant concluded that to solve such technical problem by adding the structurant after the combination of the liquid detergent precursor with the slurry of perfume microcapsules (as required in claim 1), instead that when preparing the liquid detergent precursor (as it is done in the prior art of departure), would be obvious in view of the common general knowledge as to the possibility of stabilising liquid detergent compositions already comprising perfume microcapsules, by adding therein a structurant. In such reasoning the appellant finally only referred to D3 just as a confirmation of such common general knowledge.

- 2.3.2 The board finds unconvincing the appellant's argument (for denying the plausibility of success of the proposed solution of the addressed technical problem, argument) that is only based on the comparison between Figures 3 and 4 of the patent in suit.

Indeed, the products depicted in these figures are both apparently resulting from embodiments of the patented method and thus their comparison does not justify any sound conclusion as to whether the claimed subject-matter failed or not to indicate a mandatory minimum threshold for the mixing energy to be used. Nor whether the dimensions of the aggregates visible e.g. in Figure 3 would be comparable to, larger or smaller than those of the aggregates that can be found in comparable liquid detergent products of the PDLP method of D1 (i.e. in similar liquid detergent products prepared in

accordance with D1 under the same "low" mixing energy used for preparing the invention example depicted in Figure 3 of the patent in suit). Thus, this comparison does not allow to infer any sound conclusion as to whether the posed technical problem is or not successfully solved vis-à-vis the prior art across the scope of claim 1.

- 2.3.3 Nor is it convincing the appellant's rejection of the relevance of the experimental data provided with D7 by the respondent.

The board notes that claim 1 neither requires nor excludes the possible presence of a structurant in the slurry of perfume microcapsules that is combined with the liquid detergent precursor. Only the latter is required to mandatorily be "*unstructured*".

Hence, as correctly submitted by the respondent, the experiment "Leg 1" in D7 is indeed in accordance with the patented method.

It is undisputed that this example only differs from that of "Leg 2" in that (while in the former a structurant is added after that an unstructured liquid detergent precursor and a structured slurry of perfume microcapsules have been combined, in accordance with the method of claim 1) in the latter the (same) structurant is added to the liquid detergent precursor (thereby forming a structured liquid detergent precursor) before its combination with the same (structured) slurry of perfume microcapsules (as required in the method of D1). Hence, in D7 it can only be this difference that causes the smaller size of aggregates detected in "Leg 1" in comparison to that of the aggregates found in "Leg 2" (see Table 1 of D7).

The board also stresses the absence of any evidence to the contrary and, in particular, the absence of any evidence showing that, as necessarily implied by the appellant's submissions, the same difference might not cause any reduction of the dimensions of the aggregates of perfume microcapsules in the embodiments of the method of claim 1 in which the used slurry of perfume microcapsules was instead unstructured.

Hence, and since the same difference distinguishes the patented method from that of the method of the Example of D1, these data in D7 render it also plausible that the subject-matter of claim 1 does solve across its whole breadth the technical problem indicated in the patent in suit also vis-à-vis D1.

2.3.4 Accordingly, the board concludes that the PLDP method of claim 1 successfully solves the posed technical problem.

2.4 Obviousness of the solution

The appellant in its reasoning did not refer to any prior art or common general knowledge rendering predictable that the formation of large aggregates of perfume microcapsules can be disfavoured more effectively than in the PDL method of D1, not to mention any prior art or common general knowledge rendering predictable that such improvement could be obtained in particular by adding the structurant not to the starting liquid detergent precursor, but rather to the composition obtained combining the slurry of perfume microcapsules with the liquid detergent precursor.

Thus, it is apparent that the prior art does not render obvious to solve the posed technical problem by the modification of the closest prior art, necessary to arrive at the PLDP method of claim 1, that actually solves the posed technical problem.

Therefore, the subject-matter of this claim is found based on an inventive step (Article 56 EPC) vis-à-vis the cited prior art.

3. As the above objection is the sole raised by the appellant in the appeal proceedings in an admissible way, the board came to the conclusion that the patent is also not prejudiced by the grounds for opposition under Article 100(a) EPC in combination with Article 56 EPC and, thus, sees no reason to depart from the finding of the opposition division that the maintenance of the patent as granted is not prejudiced.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



A. Pinna

J.-M. Schwaller

Decision electronically authenticated