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**Datasheet for the decision  
of 30 April 2019**

**Case Number:** T 1940/16 - 3.3.06

**Application Number:** 02735348.1

**Publication Number:** 1397478

**IPC:** C11D17/04, C11D3/00

**Language of the proceedings:** EN

**Title of invention:**

WATER SOLUBLE PACKAGE AND LIQUID CONTENTS THEREOF

**Patent Proprietor:**

Unilever PLC  
Unilever N.V.

**Opponent:**

Henkel AG & Co. KGaA

**Headword:**

Water soluble package/Unilever

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

Inventive step - (yes) - closest prior art

**Decisions cited:**

T 0824/05

**Catchword:**



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Case Number: T 1940/16 - 3.3.06

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.06**  
**of 30 April 2019**

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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 22 June 2016  
revoking European patent No. 1397478 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman**            J.-M. Schwaller  
**Members:**            S. Arrojo  
                             R. Cramer

## Summary of Facts and Submissions

- I. In its statement of grounds of appeal the patentee (from now on "the appellant") requested to set aside the decision to revoke European patent Nr. 1 397 478 and to maintain it as granted (main request) or in amended form on the basis of one of auxiliary requests 1-8 filed therewith. The appellant also filed a test report designated D7.

Claim 1 as granted (main request) reads:

*"1. A water soluble package comprising a substantially non-aqueous liquid rinse conditioning composition therein, wherein the water soluble package comprises a polymeric film, and the liquid rinse conditioning composition comprises a cationic fabric softening compound formed from a fatty acyl compound or fatty acid having an iodine value of from 10 to 100."*

- II. In response to the board's preliminary opinion the appellant filed auxiliary requests 9-16 as well as a test report designated D10 with a letter dated 11 April 2019.
- III. The respondent requested not to admit these new submissions into the proceedings as late filed.
- IV. During the oral proceedings the discussion focused on assessing compliance of the different requests with the requirements of Article 56 EPC in view of the combination of document D4 (WO 00/55068 A1) (as closest prior art) with the teachings of document D5 (WO 01/04254 A1).

- V. At the end of the debate, the final request of the appellant was to set aside the contested decision and to maintain the patent as granted (main request) or, alternatively, on the basis of one of auxiliary requests 1-8 filed with the statement of grounds of appeal, or of one of auxiliary requests 9-16 filed with letter dated 11 April 2019.

The respondent requested that the appeal be dismissed.

### **Reasons for the Decision**

1. Main request - Article 56 EPC

The Board has arrived to the conclusion that claim 1 of the main request does not comply with the requirements of Article 56 EPC for the following reasons.

- 1.1 Closest prior art

- 1.1.1 Document D4, which discloses a water soluble package containing a fluid substance to be released into a washing machine, is considered to represent the closest prior art, because in its introductory section, D4 (page 1, lines 10-15 and lines 25-28) identifies the problem of ensuring that such packages should be "strong enough to withstand storage and transport, yet weak enough to disintegrate and dissolve quickly in the washing machine". To solve this problem D4 proposes water soluble packages formed by a water soluble film (claim 1) preferably made of polyvinyl alcohol (claims 6-7) and the fluid substance to be released from the package is most preferably a "laundry detergent, fabric conditioner or fabric care formulation" (D4, page 5, lines 26-29). Furthermore, the fluid substance is part of a "substantially non-aqueous" composition, or one

containing" for example, between about 1 and about 5% water" (D4, page 5, lines 32-34).

- 1.1.2 Thus, D4 is very close in structural and functional terms to the subject-matter of the patent in suit, not only in general aspects such as the provision of water soluble packages containing a fluid composition but also in specific ones such as the preferred material of the film (i.e. polyvinyl alcohol) or the most preferred upper limit for the water content of the fluid composition (i.e. 5%).
- 1.1.3 Furthermore, both D4 and the patent in suit address the problem of maintaining structural stability of the packages during storage/transportation while ensuring an efficient release of the substance in the washing machine, for which both propose packages containing a non-aqueous fluid composition.
- 1.1.4 The appellant argued that document D4 could not be regarded as the closest prior art because it was unrelated to the problems solved by the patent in suit. In particular, D4 would relate to the provision of mechanically resistant packages for liquid compositions, whereas the patent in suit would concern the chemical stability of the polymeric film and an improved dispersion of the rinse composition. Moreover, in D4 the main focus would be liquid detergents and not rinse conditioner compositions, that this document would disclose only superficially as a secondary option.
- 1.1.5 The Board disagrees with this argumentation because both the background context and the problem to be solved in D4 are very close to those of the patent in suit. Contrary to the arguments brought forward by the

appellant, the lack of explicit references to the technical effects associated to the selection of polyvinyl alcohol films or fluid non-aqueous compositions does not imply that these features are secondary or incidentally disclosed, but rather that the resulting technical effects are apparent or trivial enough to render any additional explanation superfluous.

Furthermore, the fact that D4 proposes a dome-shaped package and two superposed polymeric sheets to increase the mechanical resistance merely implies that the proposed solution is different from the one proposed in the patent in suit, and not that the problems being addressed are different.

- 1.1.6 The appellant argued that document D2 (US 4 972 017 A) was the best starting point for assessing inventive step because it relates to the delayed addition of a rinse agent during the rinse cycle, which would be closer to the problems addressed by the patent in suit.
- 1.1.7 The Board cannot follow this argumentation because the patent in suit merely refers to the delayed release as an optional *desideratum*, that is, no specific, let alone special, solution is proposed to delay the release of the composition. Moreover, the patent defines "*immediate release*" (claim 2) and "*delayed release*" (claim 3) packages as alternatives, implying that the issue is of no particular relevance for the underlying invention.
- 1.1.8 In any case, the Board notes that when two alternative closest prior art documents are present and one of them leads to the conclusion that the requirements of Article 56 are not complied with, this document should



generally be selected as closest prior art (see reason 6.2 of T 824/05). Therefore, the conclusions reached in the present decision confirm that the selection of D4 as closest prior art was appropriate.

## 1.2 Problem solved

According to the patent in suit (par. [0005]) the problem underlying the invention is "to provide a rinse conditioning composition which is convenient to use and guarantees that the correct amount of fabric softening composition is dosed into the rinse cycle. It is also desirable to avoid the problem of spillage of the product associated with the dispensing of conventional rinse conditioners from a bottle or the like."

Furthermore, the invention intends to solve the problem (see par. [0032]) of providing an "aesthetically pleasing product" with "desirable tactile sensations", which avoids "premature breakage, e.g. during storage" (par. [0030]) and which disperses effectively (par. [0032]).

## 1.3 Solution and success thereof

1.3.1 The solution proposed in claim 1 consists in providing a *"cationic fabric softening compound formed from a fatty acyl compound or fatty acid having an iodine value of from 10 to 100"*.

1.3.2 The board notes that most of cited problems (e.g. convenience, aesthetically pleasing, desirable tactile sensations and prevention of breakage) cannot be solved by claim 1, because the alleged solutions to these problems are already known from D4 (i.e. water soluble

packages with fluid compositions, polyvinyl alcohol film and non-aqueous composition).

- 1.3.3 The appellant has filed two test reports D7 (with the statement of grounds of appeal) and D10 (with letter dated 11 April 2019) to support the idea that the defined iodine value range provides an improved dispersion of the rinse composition in water.
- 1.3.4 For the sake of the argument, it will be assumed that these tests demonstrate that the defined iodine value range leads to better dispersion of the composition and that, therefore, the subject-matter of claim 1 successfully solves the problem of improving the dispersion of the rinse composition.

#### 1.4 Obviousness

- 1.4.1 Document D5 (page 1, lines 21-24) discloses fabric conditioning compositions having good stability upon storage and an improved dispersability. According to D5, page 3, lines 21-26, fabric conditioning compositions in the form of a micro-emulsion "surprisingly" show an improved dispersability. The preferred fabric conditioner composition in D5 (page 7, lines 19-24; claim 1; page 6, line 26 - page 7, line 6) comprises a water insoluble quaternary ammonium material which comprises a compound having two C12-18 alkyl or alkenyl groups connected to the nitrogen head group via at least one ester link and having a iodine value of from 20 to 140 or of 0 to 20.

Several compositions are tested in D5, from which the three showing the best results in terms of dispersability (table 7) are compositions 17, 18 and 19, all of them comprising (table 1) 5% of water

content and "Tetranyl AO-1" (di-oleic ester of triethanol ammonium methyl sulphate 90% active (page 8, lines 2-3)). "Tetranyl AO-1" includes the same quaternary ammonium as "Tetranyl AOT-1" (except that it contains 10% IPA as solvent (page 26, lines 4-8)), which likewise is a preferred composition in the patent in suit. According to page 26 of D5, Tetranyl AOT-1 has an iodine value of 80-90, which, according to the respondent, is in the same range as that of "Tetranyl AO-1" (this statement was not contested by the appellant). It is thus clear that the rinse conditioning compositions 17, 18 and 19 in D5 anticipate the most preferred compositions of the patent in suit.

- 1.4.2 When looking for solutions to the problem of improving dispersability, the skilled person would consider documents relating to fabric conditioning compositions providing this particular technical effect. In doing so, document D5 would be retrieved, and the above-mentioned compositions 17, 18 and 19 in tables 1 and 7 would be considered as the most appropriate embodiments.
  
- 1.4.3 The appellant has argued that the skilled person would not consider the teachings of D5 when starting from D4 as closest prior art, because there is no suggestion that the improved dispersion would also be obtainable in the presence of the water soluble polymeric films in D4. Furthermore, the compositions in D5 would be aqueous whereas those in D4 would be non-aqueous, and even if both documents were combined, not all the embodiments in D5 would fall within the subject-matter of claim 1. In particular, since there would be no indication in this document that the iodine value positively influences dispersion, the skilled

person would tend to choose the most representative examples such as composition 1 in table 1, which would be the only example for which softness was tested (table 4) and which would offer the best stability.

- 1.4.4 The Board cannot follow this argumentation because the patent in suit neither mentions nor addresses any particular role of the polymeric film in the dispersion of the fabric conditioning composition. Furthermore, even if it were assumed that the film could play a role, this would not be a reason to disregard compositions having an improved dispersability, let alone those with the best dispersability.

It is also not apparent why the skilled person would select compositions having higher water content such as composition 1 in table 1 (with 22% water) when starting from document D4, which explicitly teaches compositions having 5% of water or less. Furthermore, there is no reason to disregard those compositions having the best dispersion outcomes (i.e. compositions 17, 18 and 19 in tables 1 and 7), in particular considering that the underlying technical problem is precisely that of improving the dispersability of the fabric conditioning composition. The Board also notes that since these compositions have iodine values falling within the claimed range, there would be no need to make any further selection concerning this parameter. In other words, whether the skilled person recognises or not that the improved dispersion is obtained as a result of this particular factor is irrelevant, because the defined iodine value range is rendered obvious by the selection of the above-mentioned compositions.

- 1.4.5 The Board therefore concludes that by combining the water soluble packages according to document D4 with

compositions 17, 18 or 19 of D5, the skilled person would arrive to the subject-matter of claim 1 without exercising inventive skill.

2. Auxiliary request 1 - Article 56 EPC

2.1 Claim 1 of this request corresponds to that as granted with the additional requirement that the *"rinse conditioning composition comprises a concentrated melt or a concentrated emulsion or a microemulsion"*.

2.2 Since the rinse conditioning compositions of document D5 are in the form of water-in-oil microemulsions (page 1, lines 7-9), the same argumentation and conclusions presented for the main request apply to this request, which is therefore not considered to be allowable pursuant to Article 56 EPC.

3. Auxiliary request 2 - Article 56 EPC

3.1 Claim 1 of this request corresponds to that as granted with the additional requirement that the *"package is a delayed release package"*.

3.2 The Board regards the expression *"delayed release package"* as a functional *desideratum* with no clear limiting effect. More specifically, in the present case any physical barrier used to retain the compositions within the package, such as the water soluble film in D4, would inherently provide a delay in the release of the composition. The specific time delay is not defined in the claim and would anyway not constitute a clear limitation for a claim defining a water soluble package, because it would not only depend on the features of the package as such but also on the

underlying conditions with which the fabric conditioning package is confronted.

3.3 Therefore, the same argumentation and conclusions presented for the main request apply to this request, which is therefore not considered to be allowable under Article 56 EPC.

4. Auxiliary request 3 - Article 56 EPC

4.1 Claim 1 of this request corresponds to that of auxiliary request 1 with the additional requirement that *"the level of water in the rinse conditioning composition is less than 15% by the total weight of the rinse conditioning composition "*.

4.2 Since the fluid compositions in D4 are non-aqueous and contain a maximum of 5% water, and the selected compositions in D5 (i.e. compositions 17, 18 and 19 in table 1) also contain 5% water, the same argumentation and conclusions presented for the main and first auxiliary request apply to this request, which is therefore not considered to comply with the requirements of Article 56 EPC.

5. Auxiliary request 4 - Article 56 EPC

5.1 Claim 1 of this request corresponds to that of auxiliary request 1 with an amended iodine value range (i.e. ~~10~~ 25 to 100).

5.2 Since the compositions selected in D5 (i.e. compositions 17, 18 and 19 in tables 1 and 7) have an iodine value of 80-90 and therefore also anticipate the amended range (both end-values fall within the claimed range), the same argumentation and conclusions

presented for the main request and auxiliary request 1 apply to this request, which is therefore not considered to comply with the requirements of Article 56 EPC.

6. Auxiliary request 5 - Article 56 EPC

6.1 Claim 1 of this request corresponds to that of auxiliary request 1 with the additional requirement that *"the cationic softening compound is a quaternary ammonium compound having two C<sub>12-18</sub> alkyl or alkenyl groups connected to the nitrogen head group via at least one ester link."*

6.2 Since the selected compositions in D5 (i.e. compositions 17, 18 and 19 in tables 1 and 7) fall within the scope of the added feature (it is also noted that exactly the same feature is described *verbatim* in page 7, lines 19-24 of D5), the same argumentation and conclusions presented for the main request and auxiliary request 1 apply to this request, which is therefore not considered to comply with the requirements of Article 56 EPC.

7. Auxiliary request 6 - Article 56 EPC

7.1 Claim 1 of this request corresponds to a combination of those of auxiliary requests 1, 2 and 3.

7.2 Consequently, the same argumentation and conclusions presented for the main request and auxiliary requests 1-3 apply to this request, which is therefore not considered to comply with the requirements of Article 56 EPC.

8. Auxiliary request 7 - Article 56 EPC

8.1 Claim 1 of this request corresponds to a combination of those of auxiliary requests 2 and 4 without the additional requirement that the rinse conditioning composition be *"a concentrated melt or a concentrated emulsion or a microemulsion"*.

8.2 Consequently, the same argumentation and conclusions presented for the main request and auxiliary requests 2 and 4 apply *mutatis mutandis* to this request, which is therefore not considered to comply with the requirements of Article 56 EPC.

9. Auxiliary request 8 - Article 56 EPC

9.1 Claim 1 of this request corresponds to a combination of those of auxiliary requests 2 and 5 without the additional requirement that the rinse conditioning composition be *"a concentrated melt or a concentrated emulsion or a microemulsion"*.

9.2 Consequently, the same argumentation and conclusions presented for the main request and auxiliary requests 2 and 5 apply *mutatis mutandis* to this request, which is therefore not considered to comply with the requirements of Article 56 EPC.

10. Auxiliary requests 9-16 - Article 56 EPC

10.1 Claim 1 of auxiliary requests 9, 10, 11, 12 and 14 corresponds respectively to that of auxiliary requests 1, 3, 4, 5 and 6 without the alternative of *"a concentrated melt"*.



10.2 Claim 1 of auxiliary requests 13, 15 and 16 corresponds respectively to that of auxiliary requests 2, 7 and 8 with the additional requirement that the rinse conditioning composition is *"a concentrated emulsion or a microemulsion"*.

10.3 Since the rinse conditioning compositions of document D5 are in the form of water-in-oil microemulsions (page 1, lines 7-9), neither the deletion of the alternative *"a concentrated melt"* nor the addition of the alternatives *"a concentrated emulsion or a microemulsion"* affect the argumentations and conclusions presented for the corresponding auxiliary requests 1-8.

Consequently, auxiliary requests 9-16 are not allowable under Article 56 EPC.

11. Since none of the requests is considered to be allowable pursuant to Article 56 EPC, it is not necessary to discuss the issues concerning admissibility of the late filed auxiliary requests and evidence or compliance of these requests with Article 54 EPC.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



A. Pinna

J.-M. Schwaller

Decision electronically authenticated