

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen
(D) [] No distribution

**Datasheet for the decision
of 28 July 2010**

Case Number: T 1753/07 - 3.3.06

Application Number: 96933199.0

Publication Number: 0856045

IPC: C11D 3/00

Language of the proceedings: EN

Title of invention:
Fabric softener compositions

Patentee:
THE PROCTER & GAMBLE COMPANY

Opponents:
UNILEVER N.V./UNILEVER PLC

Headword:
Fabric softener/P&G

Relevant legal provisions:
-

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

Keyword:
"Inventive step - all requests (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 1753/07 - 3.3.06

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

Appellant:
(Patent Proprietor)

THE PROCTER & GAMBLE COMPANY
One Procter & Gamble Plaza
Cincinnati, OH 45202 (US)

Representative:

Mather, Peter Geoffrey
NV Procter & Gamble Services Company SA
100 Temselaan
B-1853 Strombeek-Bever (BE)

Respondents:
(Opponents)

Unilever N.V.
Weena 455
NL-3013 AL Rotterdam (NL)

Unilever PLC
Unilever House
Blackfriars
London EC4P 4BQ (GB)

Representative:

Chisem; Janet
Unilever Patent Group
Colworth House
Sharnbrook
Bedford MK44 1LQ (GB)

Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 22 August 2007
revoking European patent No. 0856045 pursuant
to Article 102(1) EPC 1973.

Composition of the Board:

Chairman: P.-P. Bracke
Members: E. Bendl
U. Tronser

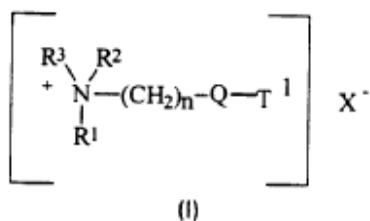
Summary of Facts and Submissions

- I. The appeal is from the decision of the Opposition Division to revoke the European patent 0 856 045.
- II. In opposition procedure the Opponent raised inter alia the objection that the patent-in-suit lacked inventive step. In its decision the Opposition Division came to the conclusion that Claim 1 as granted does not meet the requirement of Article 56 EPC 1973, given the disclosure of document
- D1 = JP-A-07-018 572 and its translation into English language.
- III. The Patent Proprietor, thereafter called Appellant, filed with letter of 15 October 2007 an appeal against this decision and paid the appeal fee on the same day. Together with the grounds of appeal an auxiliary request was submitted on 27 December 2007 and it was argued, that the requirement of inventive step would be met.
- IV. The **main request** (claims as granted) contains four claims. The wording of the only independent Claim 1 is as follows:

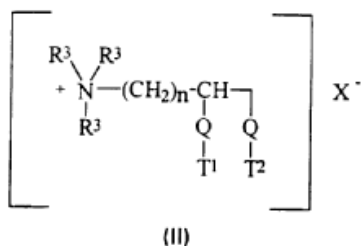
"1. A fabric softener composition which is free of cellulase and which comprises:

i) from 1% to 80% by weight of a cationic, biodegradable fabric softener compound, selected from

biodegradable quaternary ammonium compounds of formula:



or



Q is selected from -O-C(O)-, -C(O)-O-, -O-C(O)-O-,
-NR⁴-C(O)-, -C(O)-NR⁴-;

R¹ is (CH₂)_n-Q-T²;

R² is (CH₂)_m-Q-T⁴ or T⁵ or R³;

R³ is C₁-C₄ alkyl or C₁-C₄ hydroxyalkyl or H;

R₄ is H or C₁-C₄ alkyl or C₁-C₄ hydroxyalkyl;

T¹, T², T⁴, T⁵ are independently C₁₁ -C₂₂ alkyl or
alkenyl;

n and m are integers from 1 to 4; and

X⁻ is a softener-compatible anion;

ii) from 10 ppm to 0.5% by weight of a heavy metal ion
sequestrant, selected from amino carboxylic acid,
organo aminophosphonic acid compounds, and mixture
thereof;

said composition comprises a component selected from a
dye, a perfume, a fatty acid compound of Iodine Value
(IV) of at least 2, a compound having one or more fatty
acid moieties of Iodine value (IV) of at least 2,
and mixtures thereof; and said composition has a pH in
the range of from 2.0 to 4.5."

The wording of the **auxiliary request** distinguishes from the wording of the main request in the replacement of the passage "heavy metal ion sequestrant, selected from amine carboxylic acid, organo aminophosphonic acid compounds, and mixture thereof" by the wording of Claim 2 of the main request "heavy metal ion sequestrant which is an amino carboxylic acid compound selected from ethylenediamine-N,N'-disuccinic acid (EDDS), ethylenediamine tetraacetic acid (EDTA), N-hydroxyethylenediamine triacetic acid, nitrilotriacetic acid, ethylene diamine tetrapropionic acid, ethylenediamine-N,N'-diglutamic acid, 2-hydroxypropylenediamine-N,N'-disuccinic acid, triethylenetetraamine hexacetic acid, diethylenetriamine pentaacetic acid, trans 1,2-diaminocyclohexane-N,N,N',N'-tetraacetic acid and ethanoldiglycine, preferably ethylenediamine-N,N'-disuccinic acid;". The references and numbering of the remaining claims were adapted accordingly.

V. The main arguments of the Opponent, thereafter referred to as **Respondent**, are as follows:

- The stabilisation of the softener compositions by means of the heavy metal ion sequestrants can be derived from D1, in particular from the examples, especially from Example 4.
- Consequently both requests lack inventive step.

VI. The main arguments of the **Appellant** are as follows:

- D1 does not disclose the combination of a fabric softener compound according to formula (I) or (II)

with an aminocarboxylic acid, as required by Claim 1 of the patent-in-suit.

- Example 4 of D1 is not relevant for inventive step, as in this example the sodium salt of ethylene-diamine tetraacetic acid (EDTA) is combined with a **non**-quaternized nitrogen compound.

- The objective technical problem of the patent-in-suit is to stabilize fabric softening compositions comprising perfume, dye or (unsaturated) fatty acid compound having an IV of at least 2. Since this problem is not recognized by D1, the claimed composition is not derivable from D1.

VII. Although duly summoned, the Appellant did not attend the oral proceedings, as already announced prior to the hearing.

VIII. The Appellant requested in writing that the decision of the Opposition Division be set aside or alternatively the patent-in-suit be maintained on the basis of the auxiliary request submitted on 27 December 2007.

The Respondent requested that the appeal be dismissed.

Reasons for the Decision

1. *Inventive step - main request*

According to the problem and solution approach, which is used by the Boards of Appeal of the European Patent Office in order to decide on the question of inventive

step, it has to be determined which technical problem the object of a patent objectively solves vis-à-vis the closest prior art document. It also has to be determined whether or not the solution proposed to overcome this problem is obvious in the light of the available prior art disclosures.

- 1.1 The patent-in-suit aims at preventing the degradation upon storage of sensitive compounds like perfumes, dyes and fatty acids of iodine value (IV) of at least 2 and compounds having one or more fatty acid moieties of IV of at least 2. According to the patent-in-suit by preventing the said degradation a performance loss together with the development of a strong odour is avoided.

The only document cited by the parties in appeal procedure is D1. This disclosure aims at preventing the formation of base smell, i.e. the degradation of the softener base in softener compositions upon storage.

- 1.2 Claim 1 of the main request of the patent-in-suit requires the following compounds to be present in the softener composition having a pH between 2.0 and 4.5:

- (i) 1-80 wt% of a fabric softener compound according to either of formulas (I) or (II),
- (ii) 10 ppm to 0,5 wt% of a heavy metal sequestrant selected from amino carboxylic acid, organo aminophosphonic acid or their mixture and
- (iii) a compound selected from a dye, a perfume, a fatty acid compound of an IV of at least 2 or a compound having one or more fatty acid moieties with an IV of at least 2.

1.2.1 Paragraphs [0090] and [0091] of the patent-in-suit define the ingredients of the softening composition more precisely: "Most of fatty acid compounds of IV of at least 2 and/or compounds having one or more fatty acid moieties of IV of at least 2 **are fabric softener compounds**. Accordingly, in the present invention, said fatty acid compound of IV of at least 2 and/or said compound having one or more fatty acid moieties of IV of at least 2 **can be the only fabric softener actives**" (emphasis added). This means, that the fabric softener composition according to the patent-in-suit may consist only of the softener compound (representing groups (i) and (iii) above) and the heavy metal ion sequestrant (group (ii)).

The softener compound of the patent-in-suit must be a quaternary ammonium compound as defined in paragraph 1.2 (i) above; as heavy metal sequestrants inter alia EDTA or its alkali metal salts are mentioned (paragraphs [0072] and [0073]).

1.2.2 Also Example 4 of document D1 proposes the use of the sodium salt of EDTA (50 ppm) as stabilizing ingredient for a softener composition having a pH of 2.5. However, the softener component used in Example 4, present in an amount of 15 wt%, is an amine, which does not fall within the definition given by formulas (I) or (II) of the patent-in-suit.

Thus, Claim 1 of the patent-in-suit differs from D1 in the use of a specific softener component.

1.2.3 Tests have been described in the patent-in-suit with regard to the storage stability of a dye or perfume in

softening compositions in the presence/absence of heavy metal sequestering agents.

However, for the use of the specific softener compound in combination with a heavy metal ion sequestrant like Na EDTA, i.e. the feature distinguishing the patent-in-suit from D1, **no effect** has been proven.

1.2.4 Thus, the objective problem of the patent-in-suit vis-à-vis D1 resides in the provision of an **alternative** softener formulation compared to D1.

1.3 As the solution to this problem the composition according to Claim 1 of the main request has been proposed.

1.4 The Board does not have any doubt that the problem of providing an alternative to the softener compositions of D1 has been solved. The Respondent did also not raise an objection in this respect.

1.5 Finally, it has to be elucidated, whether the step of replacing the softener compounds of D1 by the ones used in the patent-in-suit involves an inventive step.

1.5.1 D1 itself recommends to use the **specific** softener compounds falling within the definition of formula (I) of the patent-in-suit (see compounds A-3, A-6 and A-8 of Tables 1 and 2 of D1, which comprise an unsaturated bond and have an IV of more than 2), which has not been contested.

1.5.2 Consequently, the exchange of the softener component in Example 4 of D1 by another component suitable for the

same purpose is considered to be a matter of routine experimentation and does not involve an inventive step.

1.5.3 Thus, Claim 1 of the main request is not considered to meet the requirement of Article 56 EPC 1973.

2. *Inventive step - auxiliary request*

2.1 The wording of Claim 1 of the auxiliary request differs from the wording of Claim 1 of the main request in the listing of specific aminocarboxylate compounds, among them EDTA.

2.2 As stated above, the sodium salt of EDTA has been used in Example 4 of D1.

2.3 Thus, the same reasons as discussed for the main request apply. The auxiliary request does also not involve an inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

G. Rauh

P.-P. Bracke

C4140.D