Internal distribution code:

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

Datasheet for the decision of 28 April 2025

Case Number: T 2588/22 - 3.3.06

Application Number: 16206285.5

Publication Number: 3339409

IPC: C11D1/835, C11D3/00, C11D3/22, C11D3/382

Language of the proceedings: EN

Title of invention:
FABRIC SOFTENER COMPOSITION HAVING IMPROVED FREEZE THAW STABILITY

Patent Proprietor:
The Procter & Gamble Company

Opponent:
Henkel AG & Co. KGaA

Headword:
FABRIC SOFTENER COMPOSITION HAVING IMPROVED FREEZE THAW STABILITY / The Procter & Gamble Company

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - non-obvious alternative

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

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

Case Number: T 2588/22 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 28 April 2025

Appellant: (Opponent)	Henkel AG & Co. KGaA Henkelstrasse 67 40589 Düsseldorf (DE)
Representative:	Henkel AG & Co. KGaA CLI Patente 40191 Düsseldorf (DE)
Respondent: (Patent Proprietor)	The Procter & Gamble Company One Procter and Gamble Plaza Cincinnati, OH 45202 (US)
Representative:	Gill Jennings & Every LLP The Broadgate Tower 20 Primrose Street London EC2A 2ES (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 12 October 2022 concerning maintenance of the European Patent No. 3339409 in amended form.**

Composition of the Board:

Chairman	R. Elsässer
Members:	P. Ammendola
	J. Hoppe

Summary of Facts and Submissions

I. Initially, both the opponent and the patent proprietor appealed the interlocutory decision of the opposition division that found the patent in amended form with claims 1 to 14 of auxiliary request 2 (hereinafter the maintained claims 1 to 14) to comply with the EPC.

II. During the oral proceedings held before the board on 28 April 2025, the proprietor withdrew its appeal. Hence, the opponent is the (sole remaining) appellant and the patent proprietor is (only) the respondent to the appeal of the opponent.

III. Maintained claim 1 read as follows:

"*1. A liquid fabric softener composition comprising:*
a) a quaternary ammonium ester softening active;
b) from 0.01% to 5.0% by weight of the composition of non-ionic surfactant wherein the non-ionic surfactant is an ethoxylated non-ionic surfactant;
c) cellulose fibers; wherein the cellulose fibers are cellulose micro or nano fibrils
wherein the viscosity of the fabric softener composition is from 50 mPa.s to 800 mPa.s, as measured with a Brookfield DV-E rotational viscometer according to the method in the description."

Maintained claims 2 to 12 defined preferred embodiments of the liquid fabric softener composition (herein after LFS composition) of claim 1.

Maintained claim 13 defined a process for transporting the LFS composition according to any preceding claim.

Maintained claim 14 defined the use of cellulose fibers to improve the viscosity stability upon freeze-thaw (hereinafter F/T viscosity stability) of the LFS composition according to any preceding claim.

IV. In their statement of grounds of appeal the opponent and appellant only raised objections of lack of inventive step against the maintained claims.
These were based on:
- the combination of D14 (WO 2012/052349 A1) with D10 (WO 2009/101545 A1) or D16 (WO2015/006635 A1);
- the combination of D9 (WO 99/29823 A1) with D10 or D16;

or
- the combination of D8 (WO 2004/099354 A1) with D10 or D16.

The opponent also referred to the experimental data in D17 (Viscosity measurements made by LEITAT in May 2022) already on file, and to those in D18 (Viscosity measurements made by the opponent) filed with the statement of grounds of appeal.

V. The parties final requests at the hearing were as follows:

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

The respondent (proprietor) requested to dismiss the opponent's appeal.
The proprietor also requested the board not to admit D18.

Reasons for the Decision

Main request (patent as maintained)

1. Inventive step (Article 56 EPC) starting from the prior art disclosed in D14.

1.1 It is undisputed between the parties that the LFS composition - comprising a (cationic) polymeric thickener and showing good pourability and viscous appearance also after several F/T cycles - that is disclosed in Example 1 of D14 (see Tables 1 to 4) represents a suitable starting point for the assessment of inventive step.

It is also undisputed that the LFS composition of maintained claim 1 (see III. above) only differs from this prior art in that the former is characterised by:
(a) the additional presence of cellulose fibers that are cellulose micro or nano fibrils (also referred to by the parties as CMC) and
(b) the specified viscosity, as measured with the method described in the patent description.

1.2 At the oral proceedings before the board, the respondent apparently implicitly accepted the appellant's submissions as to the absence of any technical advantage of the claimed LFS composition over this prior art (inasmuch as this party identified the technical problem solved by the subject-matter of maintained claim 1 as the provision of an alternative rheology modifier that does not impair F/T viscosity stability) but nevertheless concluded that the available prior art would still not render obvious the claimed subject-matter.

The subsequent debate rendered apparent to the board that this conclusion was correct.

Accordingly, the board could decide the present issue assuming in favour of the appellant that the subject-matter of maintained claim 1 does not confer any technical advantage over the prior art disclosed in D14.

Therefore, there has been no need for the board to decide on the plausibility of the various submissions made by the appellant in support of said absence of a technical advantage (including, *inter alia*, the analysis of the experimental data in documents D17 and D18 and the interpretation of the term "viscosity" in the claim at issue). Consequently, the board also did not need to decide on the contested admittance of D18 either.

1.3 At the oral proceedings the appellant presented a partially modified definition of the technical problem solved by the subject-matter of maintained claim 1 vis-à-vis the prior art disclosed in D14, in comparison to that provided in writing (see the second sentence in point 4.7 of the statement of grounds of appeal).
In particular, this party argued orally that:

- since features (a) and (b), which distinguish the claimed subject-matter from the prior art, did not give rise to any discernible technical advantage and
- since maintained claim 1 neither expressly nor implicitly required the specified viscosity to result from the presence of the CMC ingredient (for which the claim stipulates no minimum amount),

the characterising features (a) and (b) of maintained claim 1 were mutually independent and addressed two

distinct partial problems, both relating to the provision of a mere alternative to the prior art of departure.

In particular, the appellant submitted that the presence of CMC (i.e. the claim feature identified as "characterising feature (a)" above) should be regarded as solving the partial technical problem of providing an alternative to the LFS composition of departure while retaining satisfactory F/T viscosity stability.

The appellant further submitted, *inter alia*, that the disclosure in D16 would render it obvious to solve this partial technical problem by incorporating CMC into Example 1 of D14, i.e. to modify the prior art of departure so as to arrive at characterising feature (a) of maintained claim 1.

The same would apply to the disclosure in D10.

1.4 The board also finds that the claimed subject-matter can only be regarded as an alternative to the starting LFS composition that maintains satisfactory F/T viscosity. However, in the board's view, neither D16 nor D10 discloses the presence of CMC in LFS compositions exhibiting satisfactory F/T viscosity stability, nor do these documents contain any teaching that would justify the expectation that CMC could be incorporated into such sort of compositions without adversely affecting their good F/T viscosity stability.

1.5 In particular, the board notes that the teachings in D16 (see in particular in page 1, lines 11-16, page 2, lines 17-18, page 6, 21-24) that, according to the appellant, would motivate the skilled person to incorporate CMC in the LFS composition of D14, do not

justify any prediction as to the F/T viscosity stability of the LFS compositions disclosed in this citation.

1.5.1 The board stresses that the technical problem of structured (thickened) LFS compositions identified in the passage on page 1, lines 11-16, of D16 reading:

> "*...external structurants, particularly polymeric external structurants, typically result in poor phase stability of the liquid fabric care compositions, for instance, due to depletion flocculation. The lack of stability is particularly acute at low temperatures and high temperatures, as well as temperature fluctuations. This is because external structurants typically induce the fabric softener active to coalesce or flocculate*"

only (vaguely) refers to lack of stability at "*low temperatures*" and "*high temperatures*" and to changes in the structure of the composition (coalescence and flocculation), without mentioning or necessarily implying that these problems/structure changes resulted from "freezing" the composition.

1.5.2 Moreover, as pointed by the respondent, the subsequent teachings on page 2, lines 11-13, and in the examples of D16, demonstrate that this prior art only discloses the use of CMC as beneficial to the stability of structured (thickened) LFS compositions "*even at low usage temperatures below 20°C and high usage temperatures above 30°C*" (emphasis added), i.e. temperatures much higher than those at which LFS compositions "freeze", i.e. undergo to a phase transition very different from those possibly occurring even at the "*low usage temperature*". The board holds

that the fact that D16 teaches that CMC allows for certain temperature variations of liquid LFS compositions does not render it obvious for the skilled person that the same compositions would be stable even after the phase changes involved in a freeze-thaw cycle.

1.5.3 Hence, the disclosure provided by D16 either in vague form or limited to the stability at "usage" temperatures, neither necessarily implies nor renders likely that CMC might not impair the F/T viscosity stability of a thickened LFS composition with satisfactory F/T stability.

1.5.4 Thus, the disclosure in D16 cannot possibly render it obvious to solve the (first partial) technical problem identified by the appellant by incorporating CMC into Example 1 of D14.

1.6 As to the teachings in D10 (see in particular in page 6, lines 4-5, and from the last paragraph on page 15 to line 8 of page 16) that, according to the appellant, would motivate the skilled person to use CMC in the LFS composition of D14, the board notes that these teachings are neither explicitly nor implicitly provided in connection to LFS compositions.

1.6.1 As apparent from e.g. claim 1 and 4 and the examples of D10, this prior art relates to liquid detergent compositions (such as light of heavy duty detergent compositions, or shampoos).

As also stressed by respondent (see in point 5.3.2.5 of the respondent's reply to the appeal dated 5 July 2023) LFS compositions indisputably comprise ingredients,

such as the quaternary ammonium ester softening active, that are not present in liquid detergents.

Hence, already for these reasons the board finds that the skilled person cannot expect the CMC used in liquid laundry detergents or shampoos disclosed in D10 to also be suitable for LFS compositions, let alone to also be suitable for specifically thickened LFS compositions with good F/T viscosity stability. Accordingly, D10 would not be considered by the skilled person looking for modifications of the prior art of departure, capable of not impairing the good F/T viscosity stability.

1.6.2 Thus, also the disclosure in D10 cannot possibly render it obvious to solve the first partial technical problem identified above by incorporating CMC into Example 1 of D14.

1.7 Accordingly, the modification of the prior art disclosed in D14 required to arrive at characterising feature (a) the subject-matter of maintained claim 1 is not obvious neither in view of D16 nor in view of D10. Therefore, the appellant's inventive step objections based on the combination of D14 with either D16 or D10 are found unconvincing already for these reasons.

2. Inventive step (Article 56 EPC) starting from the prior art disclosed in D8 or that disclosed in D9.

2.1 The appellant's arguments that the subject-matter of maintained claim 1 differed from the prior art disclosed in D8 (see the penultimate sentence in point 4.11 of the statement of grounds of appeal) as well as from that disclosed in D9 (see the penultimate sentence in point 4.9 of the statement of grounds of appeal)

only by the additional presence of CMC (i.e. the same feature identified above as characterizing feature (a) over the prior art disclosed in D14) have been disputed by the respondent.

2.2 However, since the appellant has only submitted that the addition of CMC to the prior art disclosed in D8 or D9 would be rendered obvious by the teachings of D16 or of D10, the same reasoning set out above — for the conclusion that the modification of the prior art disclosed in D14 required to arrive at the characterising feature (a) of the subject-matter of maintained claim 1 is not obvious in view of either D16 or D10 — necessarily applies to the objections of lack of inventive step starting from D8 or D9, even when assuming, in the appellant’s favour, that these two citations disclosed prior art from which the subject-matter of maintained claim 1 only differed by the additional mandatory presence of CMC.

2.3 Accordingly, the reasons given in 1.4 to 1.7 above are sufficient for concluding that also the appellant's inventive step objections based on the combination of D8 with either D16 or D10, as well as those based on the combination of D9 with either D16 or D10, are unconvincing.

3. As the same reasoning applies for the remaining claims, the board finds that, based on the appellant's objections, the subject-matter of the patent in the amended form that the oppositions division found to comply with the EPC does not contravene Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Wille R. Elsässer

Decision electronically authenticated