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Datasheet for the decision of 22 July 2025

Case Number: T 1617/23 - 3.3.06

Application Number: 14731122.9

Publication Number: 3004305

IPC: C11D1/14, C11D1/29, C11D3/20, C11D11/00

Language of the proceedings: EN

Title of invention:
CONCENTRATED SURFACTANT COMPOSITION

Patent Proprietor:
The Procter & Gamble Company

Opponent:
Henkel AG & Co. KGaA

Headword:
Procter & Gamble / Concentrated Surfactant

Relevant legal provisions:
RPBA 2020 Art. 13(2)
EPC Art. 56

Keyword:
Main request - Amendment after summons - taken into account (no)
Main and first auxiliary request - Inventive step - (no)
Third auxiliary request - Inventive step - (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

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Case Number: T 1617/23 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 22 July 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 & Gamble Plaza Cincinnati, OH 45202 (US)
Representative:	P&G Patent Belgium UK N.V. Procter & Gamble Services Company S.A. Temselaan 100 1853 Strombeek-Bever (BE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 12 July 2023 rejecting the opposition filed against European patent No. 3004305 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	J.-M. Schwaller
Members:	R. Elsässer
	C. Heath

Summary of Facts and Submissions

I. The appeal of the opponent was directed against the decision of the opposition division to reject the opposition, *inter alia* based on the conclusion that the subject-matter of claim 1 as granted, which reads as follows:

"1. A concentrated surfactant composition comprising:
a. at least 50%, preferably from 50% to 80%, even more preferably 55% to 70%, by weight of the surfactant composition, substantially neutralized anionic sulfated surfactant, wherein by "substantially neutralized" it is meant that the sulfated surfactant is 98% to 100% neutralized; and
b. from 5% to 30%, preferably 12% to 22%, by weight of the surfactant composition, of a water-soluble organic acid, wherein the organic acid comprises 6 carbon atoms or fewer, wherein the organic acid is present in free acid form and its salt in a molar ratio of from 5:1 to 1:5;
wherein the composition has a pH of from 2 to 6.9, preferably a pH of from 2 to 6, more preferably a pH of 3 to 5, when measured in an aqueous 10% solution of the composition.".

involved an inventive step over **D3** (US 3 893 955) and **D4** (WO 2009/148914).

II. With its grounds of appeal, the appellant argued *inter alia* that the subject-matter of above claim 1 lacked inventive step starting from **D3** or **D4**.

III. With its reply, the patent proprietor and respondent rebutted these objections and resubmitted auxiliary

requests 1-4 and 6-7 already filed in the first instance proceedings.

IV. At the end of the oral proceedings held on 22 July 2025 the respondent withdrew auxiliary request 2. The parties' final requests were established as follows:

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

The respondent requested that the appeal be dismissed (main request), or as an auxiliary measure, that the patent be maintained on the basis of one of auxiliary requests 1, 3-4, 6 and 7, all filed in opposition and refiled with the reply to the grounds of appeal.

Reasons for the Decision

1. **Main request - Inventive step**

The invention is directed to concentrated surfactant solutions.

1.1 In the communication pursuant to Article 15(1) RPBA, the board had set out its preliminary opinion that the subject-matter of the main request did not involve an inventive step over **D4**, essentially based on the reasoning provided by the appellant.

1.2 In its reply to the appeal, the respondent stated that the appellant's reasoning contained new arguments and requested not to admit them into the proceedings under Article 12(2), (4) and (6) RPBA.

However, independently of the question whether a board of appeal has the power not to admit new arguments, see

below, this request could not be granted since the respondent did not identify the allegedly new arguments. It is noted that **D4** was introduced by the patent proprietor at the oral proceedings before the opposition division and that, after this document was admitted by the opposition division, the opponent argued as to why claim 1 of the main request lacked inventive step *inter alia* over **D4** so that the attack as such was not new, see points 13, 19, 23 and 24 of the minutes. In the absence of any indication as to which argument was allegedly new, the respondent's request not to admit the appellant's attack entirely or partially had to be refused.

1.3 Apart from this request, the respondent did not provide any substantive argument as to why the attack starting from **D4** should not be followed. The statement made in the last paragraph of its reply to the appeal that the reasons outlined for **D3** applied *mutatis mutandis* also to the attack starting from **D4** is only formal in nature and anyway not convincing since the disclosures of **D3** and **D4** and the corresponding distinguishing features are different: **D3** discloses concentrated surfactant compositions comprising the salt of a carboxylic acid while **D4**, like the claimed invention, discloses concentrated surfactant compositions comprising a mixture of carboxylic acids and their salts. Moreover, while **D4** primarily teaches to use fatty acids having 8 carbon atoms or more, **D3** teaches to use acids having up to 8 carbon atoms, with many of the preferred acids, such as citric acid, lactic acid or acetic acid, having up to 6 carbon atoms, as currently claimed. Therefore the reasoning set out with regard to **D3** cannot equally apply to **D4**.

Thus, the respondent provided no substantive arguments

with regard to the attack starting from **D4** so that, based on the objection raised by the appellant, the board came to the preliminary opinion that the subject-matter of claim 1 of the main request was obvious in view of **D4**.

1.4 The respondent did not reply to the board's preliminary opinion, and only at the oral proceedings it presented its case with regard to **D4**, namely that the main request would involve an inventive step, contrary to the board's preliminary opinion. Questioned by the board on this point, the respondent justified its course of action by pointing out that filing arguments in response to the board's provisional opinion, yet prior to the hearing, would have been problematic in light of the practice of some Boards to refuse such arguments as late filed.

1.5 Content-wise, the respondent's appeal case as presented in oral proceedings did not merely consist of an elaboration of a case already made. Rather, it presented its entire case concerning **D4** for the first time. Furthermore the arguments presented were extensive and complex to an extent that the board could not immediately assess their validity and prima-facie relevance.

1.6 The Board thus decided not to take into account the respondent's arguments based on the following considerations:

1.7 The new line of argument amounted to an amendment of the respondent's appeal case according to Art. 13(2) RPBA. Exceptional circumstances were not apparent to the board and were not substantially argued, either. Yet it is questionable whether "arguments" are indeed

covered by the provision of Art. 13(2) or in fact any other provision of the RPBA dealing with late filing. In this regard, decision **T 1914/12** after an extensive analysis of Art. 114 EPC *("L'article 114(2) CBE confère aux instances de l'OEB un pouvoir discrétionnaire quant à l'admission de « faits » (DE : « Tatsachen » ; EN : « facts ») que les parties n'ont pas invoqués ou des « preuves » (DE : « Beweismittel » ; EN : « evidence ») qu'elles n'ont pas produites en temps utile. On notera que la version anglaise se limite ici aux seuls faits et éléments de preuve (« facts or evidence ») et ne reprend pas la référence aux arguments de l'article 114(1), seconde partie de phrase, CBE (« facts, evidence and arguments »)* and the traveaux préparatoires *(« En réponse à une question de la délégation allemande, l'OEB confirme que l'article 10ter(1) RPCR exclut tout nouvel exposé des faits, mais non une modification de l'appréciation juridique. Une formulation ouverte a été adoptée afin de permettre une évolution du droit sur la base de la pratique jurisprudentielle. »)* came to the conclusion that the boards had no authority to reject arguments submitted at a late stage of procedure, and that the RPBA thus had to be interpreted in a restrictive manner in regard of late-filed arguments. The board concurs with this view and adds that it would deprive an oral hearing of its function of a meaningful dialogue between the Board and party(ies) if only such arguments could be presented that had already been presented beforehand in writing. Otherwise, an oral hearing would become an exercise of reading out written submissions.

1.8 Yet the possibility of raising new arguments must find its limits where arguments cannot be properly followed or understood and the board finds itself at a loss even to grasp an argument's prima facie relevance. In such a

situation, it would have been incumbent on the respondent to make submissions in writing prior to the hearing so that both the board and the other party find themselves in a position to properly digest, assess and discuss such argument. All of this was not possible in the case at issue.

1.9 In view of these findings, the board exercised its discretion not to take into account the respondent's arguments presented at the oral proceedings.

1.10 In view of these findings, the board saw no reason to deviate from its preliminary opinion that the subject-matter of claim 1 is rendered obvious by **D4**, which is also directed to surfactant concentrates and undisputedly a suitable starting point for assessing inventive step. In particular, its claim 1 discloses a surfactant concentrate comprising at least 75% of an essentially completely neutralised anionic sulphated surfactant and 5% to 25% carboxylic acid, of which 4% to 96%, preferably 80-87% (claim 4) of the carboxylic acid, is in its free acid form. This corresponds to a preferred ratio of acid to salt of from 4:1 to 6.7:1. As the value of 4:1 falls squarely into the claimed range, the assessment of the opposition division that **D4** failed to disclose the claimed acid to salt ratio cannot be followed. Moreover, the pH of the concentrate is in a range of from 5 to 7.5, which largely overlaps with the claimed range of from 2 to 6.9.

Thus, claim 1 differs from the disclosure of **D4** in that this document only discloses carboxylic acids in general, with fatty acids having an average of from 8-28 carbon atoms being preferred. In contrast, carboxylic acids having up to 6 carbon atoms, as

claimed, are not specifically disclosed in **D4**.

1.11 There is however no evidence of a technical effect resulting from this distinguishing feature. While [0032] of the patent teaches that according to the invention, the acid comprises 6 carbon atoms of fewer, no reasons are given for this requirement. Moreover, all the examples and comparative examples employ lactic acid, so that no comparison with other acids, in particular with fatty acids, is provided. Thus, there is no evidence on file that the selection of "shorter" acids gives rise to any advantage in comparison to "longer" acids, for instance in terms of stability and/or viscosity of the concentrates. Therefore the problem to be solved needs to be reformulated as the provision of an alternative surfactant concentrate.

1.12 As a solution to this problem, the patent proposes a concentrated surfactant composition containing a C_1-C_6-acid.

1.13 In view of the fact that **D4** teaches that carboxylic acids in general are suitable, the skilled person arrives at the claimed subject-matter without having to exercise any inventive activity. As a consequence, the main request is not allowable under Art. 56 EPC.

2. Auxiliary request 1

In claim 1 of this request, the molar ratio of the free acid to salt form is restricted to from 3:1 to 1:3.

2.1 This amendment does not further distinguish the claimed subject-matter from **D4**, which discloses on page 5, line 18, that in a preferred embodiment, 60% of the carboxylic acid is present in its free acid form. Also

the lower limit of a more preferred embodiment, namely 75 %, falls into the claimed range, and so also auxiliary request 1 lacks an involve an inventive step and is thus not allowable under Article 56 EPC.

3. Auxiliary request 3

In claim 1 of this request, the group of acids having 6 carbon atoms or lower has been limited to citric acid, lactic acid or acetic acid.

3.1 The appellant did not attack this request in the written procedure. An attack starting from **D4** against this request was presented for the first time at the oral proceedings before the board. The same applies to the counter arguments presented by the respondent. In view of these circumstances, it appeared appropriate to consider the arguments of both sides, and the board has come to the conclusion that **D4** does not render obvious the subject-matter of claim 1 at issue for the following reasons

3.1.1 **D4** aims at providing concentrated surfactant compositions that are stable and have a desirable viscosity (paragraph [0002]).

3.1.2 While the examples do not show a comparison with fatty acids so that no improvement compared to **D4** is shown, they do at least show that the compositions obtained are both stable (low sulfate gain) and have an acceptable viscosity, as can be seen when comparing the viscosities with those disclosed for the examples of **D4** on page 9. Moreover, with claim 1 at issue being limited to three acids having a relatively similar low pKa, it is credible that the examples in the patent are representative for the claimed invention. Therefore,

the problem to be solved can be formulated as the provision of a further stable composition with an acceptable viscosity.

3.1.3 Faced with this problem, the skilled person would consider the teaching on page 5 of **D4** that, in order to achieve both a good stability and viscosity, from 60 to 90%, most preferably from 80 to 87 % ,of the acid should be present in its free acid form.

3.1.4 The board agrees with the parties that the pH-value, the ratio of the carboxylic salt to the free acid and the pKa of the acid are interdependent, and that this interdependency is described by the Henderson-Hasselbalch equation, that

$$pH = pKa + \log_{10} ([\text{fatty acid anion}]/[\text{free fatty acid}])$$

as disclosed in par. [0029] of the patent and on page 6, line 8 of **D4**.

It is thus immediately evident that the pH equals the pKa if the amounts of fatty acid anion and free fatty acid are the same, since the $\log_{10}$ of 1 is zero.

In contrast, the $\log_{10}$ becomes positive if there is more anion than free acid so that in this case, the pH is greater than the pKa. This can be seen e.g. in example 2 on page 9 of **D4** where for an anion to acid ratio of 2:1 and a pKa of 7.3 (page 9, line 25), a pH of 7.6 is obtained.

On the other hand, the $\log_{10}$ becomes negative if there is less anion than free acid. For such a composition, the pH will be lower than the pKa. This can be seen in example 1, on page 9 of **D4**, where for an anion to acid

ratio of 1:2 and a pKa of 7.3, a pH of 7.0 is obtained.

The same pattern is shown in the examples of the patent, see e.g. examples 7 and 8. Also in this case, a lower pH goes hand in hand with an increase of the amount of free acid.

3.1.5 Based on this finding, it is clear that compositions having at least 60% of free acid will have a pH that is lower than the pKa of the acid used. In view of the fact **D4** teaches that the pH should be at least 5 (claim 7), this document implicitly teaches away from using acids having a pKa below 5, since with such low-pKa-acids, the desired significant amount of free acid (page 5, line 27-29) cannot be achieved at the preferred pH range.

3.1.6 It is noted that the lower pH limit of 5 is only a preferred feature of the invention of **D4**, but it is not credible that the skilled person faced with the problem to be solved and starting from **D4** would combine several less preferred options of its teaching, such as an acid that is not a fatty acid and a pH-value outside of the preferred range. Such a course of action only appears to be obvious in the knowledge of the invention and is therefore based on hindsight.

3.2 It follows from the above considerations that the subject-matter of claim 1 at issue (and by the same token that of its dependent claims) is not obvious from the known state of the art, and therefore auxiliary request 3 meets the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent on the basis of the claims according to auxiliary request 3 re-filed with the reply to the grounds of appeal, and a description to be adapted where appropriate.

The Registrar: The Chairman:

A. Wille J.-M. Schwaller

Decision electronically authenticated