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**Datasheet for the decision
of 20 June 2023**

Case Number: T 1445/21 - 3.3.07

Application Number: 06745047.8

Publication Number: 1893734

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C11D3/50, C11D17/04

Language of the proceedings: EN

Title of invention:

NEAR ANHYDROUS CONSUMER PRODUCTS COMPRISING FRAGRANCED
AMINOPLAST CAPSULES

Patent Proprietor:

Firmenich SA

Opponents:

Givaudan SA
Unilever PLC / Unilever N.V.
The Procter & Gamble Company
Henkel AG & Co. KGaA

Headword:

NEAR ANHYDROUS CONSUMER PRODUCTS COMPRISING FRAGRANCED
AMINOPLAST CAPSULES/Firmenich SA

Relevant legal provisions:

RPBA 2020 Art. 12(4), 12(6)

EPC Art. 56

Keyword:

Admittance of new facts (No)

All requests - Inventive step (No)

Decisions cited:

G 0002/21, T 0197/86, T 1962/12



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Case Number: T 1445/21 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 20 June 2023

Appellant: Firmenich SA
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 15 July 2021
revoking European patent No. 1893734 pursuant to
Article 101(3)(b) EPC.**

Composition of the Board:

Chairman A. Usuelli
Members: D. Boulois
Y. Podbielski

Summary of Facts and Submissions

- I. European Patent 1 893 734 had been opposed under Article 100 (a) and (b) EPC on the grounds that its subject-matter lacked novelty and inventive step, and that it was not sufficiently disclosed.
- II. The appeal lies from the decision of the opposition division to revoke the patent. The decision was based on the sets of claims filed with letter of 25 May 2020 as the main request and as auxiliary requests 1-6, and those filed with letter of 16 April 2021 as auxiliary requests 7 and 8.

Claim 1 of the main request read:

"1. A liquid substantially non-aqueous cleaning or conditioning composition, comprising a surfactant or a conditioning active ingredient and a content in water which is not above 10% by weight, relative to the total weight of the composition, which further comprises a fragrance encapsulated in aminoplast type microcapsules which are obtained from melamine-formaldehyde condensation reactions and wherein said microcapsules carry a cationic coating thereon."

Claim 1 of auxiliary requests 1, 2, 4, 5 and 6 had been respectively amended by the following additional features:

- "wherein said cationic coating is a cationic polymer coating" (auxiliary request 1),
- "wherein the cationic coated microcapsules are prepared via the use of cationic polymers and then incorporated in the composition" (auxiliary request 2),

- "wherein the content in encapsulated perfume is comprised between 0.01 and 10% by weight of the total weight of the composition" (auxiliary request 4),
- "wherein the content in encapsulated perfume is comprised between 0.01 and 10% by weight of the total weight of the composition and wherein the perfume comprises at least 50% by weight relative to the total weight of perfume, of perfumery raw materials having a Clog P above 3.5 and a volatility below 50 µg/L (auxiliary request 5),
- "wherein the content in encapsulated perfume is comprised between 0.01 and 10% by weight of the total weight of the composition and wherein the perfume comprises between 5 and 30 % by weight of the total fragrance of one or more perfumery raw material with Clog P above 5" (auxiliary request 6).

Claim 1 of auxiliary request 3 differed from claim 1 of the main request in that it related to "A cosmetic or household consumer product comprising a liquid substantially non-aqueous...", with the further additional feature "wherein the cationic coated microcapsules are prepared via the use of cationic polymers and then incorporated in the product".

Claim 1 of auxiliary requests 7 differed from claim 1 of the main request in that it related to "A single dose package comprising a consumer product consisting of a liquid detergent, a fabric softener, a shampoo, a liquid soap, a shower gel, a liquid all-purpose cleaner comprising a liquid substantially non-aqueous...".

Claim 1 of auxiliary request 8 differed from claim 1 of the main request in that it related to "A single dose package comprising a consumer product consisting of a liquid detergent or a fabric softener comprising a

liquid substantially non-aqueous..." and was further amended by the feature "and wherein the package is formed of polyvinyl alcohol (PVOH) or a mixture thereof with another water-soluble polymer".

III. The documents cited during the opposition proceedings included the following:

D1: US 2004/0142840 A1
D4: EP 1 407 753 A1
D5: US 6,194,375 B1
D6: WO 2006/066654 A1
D7: WO 2004/016234 A1
D8: US 4,234,627
D13: US 2004/0033921 A1

IV. According to the decision under appeal, the main request met the requirements of Articles 123(2), (3) and 83 EPC. Formulations 2 and 3 of D6 were considered to anticipate the subject-matter of claim 1 of the main request.

The experimental report filed by the patentee on 16 April 2021 was admitted into the opposition proceedings.

The opposition division considered that D7 was the closest prior art for the assessment of inventive step of auxiliary request 1. Since no plausible evidence of an improvement had been shown over D7, the problem was the provision of an alternative composition comprising the aminoplast type microcapsules. The claimed solution was obvious in view of D7, and also D1, D4, D5, D8 and D13. Starting from D1, there was also no inventive step. Auxiliary request 2-8 were not inventive either,

since the restrictions to claim 1 in these requests did not contribute to an inventive step.

- V. The patent proprietor (hereinafter the appellant) filed an appeal against said decision. With the statement setting out the grounds of appeal dated 25 November 2021 the appellant filed a main request and auxiliary requests 1-8, corresponding to the requests filed during the opposition proceedings.
- VI. With its letter of 1 April 2023, opponent 03 (hereinafter respondent 03) requested that auxiliary requests 2-8 not be taken into account and that the data on pages 17-18 of the grounds of appeal not be admitted to the proceedings.
- VII. With its letter dated 8 April 2022, opponent 02 (hereinafter respondent 02) requested that the information on pages 17-18 of the grounds of appeal pertaining to the experimental report not be admitted into the proceedings.
- VIII. A communication from the Board, dated 3 March 2023, was sent to the parties. In it the Board expressed its preliminary opinion that *inter alia* the experimental report did not appear to make the existence of a technical effect linked with the claimed subject-matter credible, and that the technical problem with regard to inventive step appeared to be as defined by the opposition division in its decision.
- IX. Oral proceedings took place on 20 June 2023.

- X. The arguments of the appellant may be summarised as follows:

Admission of the information on the experimental report on pages 17-18 of the statement of grounds of appeal

The explanations given on p.17-18 of the grounds of appeal had been filed in direct response to the written decision of the opposition division. The mere filing of this supplementary information could not be considered to amount to new facts or evidence as asserted by respondents 02 and 03.

Main request - Inventive step

Examples 14 and 15 of D7 disclosed the simple preparation of microcapsules. There was neither a disclosure of the presence of surfactants, nor of the presence of water. Comparative example 1 of D7 should in fact have been the closest prior art. The key difference was the claimed amount of water, and the experimental report showed an improved stability and a better olfactive performance. The claimed solution was not obvious in view of D7, which did not disclose a reduction of the water content, and rather taught away, in view of the disclosed shampoo composition and the subject-matter of dependent claim 3. It was neither obvious in view of D1.

Auxiliary requests 1-3 and 5-6 - Inventive step

The amendments brought to these requests gave further limitations of the claims over the prior art.

Auxiliary request 4 - Inventive step

Example 14 and 15 of D7 did not disclose the perfume concentration.

Auxiliary requests 7-8 - Inventive step

Single dose packages of PVOH were not disclosed in D7.

XI. The arguments of the respondents may be summarised as follows

Admission of the information on the experimental report on pages 17-18 of the statement of grounds of appeal

According to respondent 02, this information was not related to the facts or evidence on which the decision was based. According to respondent 03, the supplementary data on pages 17-18 constituted an amendment to the appellant's case which should not be admitted into the proceedings.

Main request - Inventive step

The distinguishing feature over D7 was the claimed water amount. The experimental report did not relate to the stability problem, which was mentioned by the contested patent, but related to olfactory performance and intensity, which was a different effect that should not be taken in account. Moreover, the experimental report was deficient technically and could not show an effect; it also did not make a comparison with the disclosure of D7. The problem was the provision of an alternative composition and the solution was obvious in view of D7 or D1, D8 or D13.

Auxiliary requests 1-3, 5-6 - Inventive step

The new features of claim 1 of these requests were known from D7 and could not distinguish further the claimed subject-matter from the disclosure of D7.

Auxiliary request 4 - Inventive step

The perfume concentration was disclosed in D7 on pages 19, 22 or 26.

Auxiliary requests 7-8 - Inventive step

Single dose package in PVOH were commonly known and disclosed in D1 and D13.

XII. Requests

The appellant (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request or one of auxiliary requests 1-8, all filed with letter dated 25 November 2021.

Respondent 1 (opponent 1), respondent 2 (opponent 2) and respondent 3 (opponent 3) requested that the appeal be dismissed.

Respondents 2 and 3 also requested that the information on pages 17-18 of the grounds of appeal pertaining to the experimental report not be admitted into the proceedings.

Respondent 3 furthermore requested that auxiliary requests 2-8 not be taken into account.

Reasons for the Decision

1. Admission of the information on the experimental report on pages 17-18 of the statement of grounds of appeal

1.1 On pages 17 and 18 of the statement of grounds of appeal, the appellant comments on the experimental report filed on 16 April 2021. The appellant focuses in particular on examples 2 and 3, and Tables 1, 2, 3 and 4 of the experimental report, especially with regard to the water content. It explains the process of adjusting the water content of the formulations obtained in examples 2 and 3 in order to prepare comparative compositions comprising 60% of water. The tables give also further information on the dose of product added to the washing machine, total water in the detergent doses and total encapsulated fragrance in the detergent doses.

1.2 In the Board's view, the data and explanations on pages 17-18 go beyond simple explanations or clarifications and provide supplementary data to the experimental report that were not immediately deducible from the experimental report filed on 16 April 2021. They constitute evidence that was not part of the facts on which the decision under appeal was based. For this reason their filing amounts to an amendment of the appellant's case and the Board has discretion to admit them pursuant to Article 12(4) RPBA 2020.

Relevant criteria for the exercise of the Board's discretion are the complexity of the amendment, the suitability of the amendment to address the issues

which led to the decision under appeal and the need for procedural economy.

The experimental report and the supplementary data on pages 17-18 of the statement of grounds of appeal give only the water and fragrance amounts, but do not give any indication of the amounts of all specific components contained within the commercially available detergent bases. As argued by the respondents, it also fails to indicate other potentially relevant factors caused by the addition of water, such as the interaction of any other components within the detergent base with the additional water as well as the difference in pH of the detergent compositions. It appears therefore not possible to determine whether any differences in the olfactive performance can be ascribed only to the use of a larger amount of water.

Consequently, the complexity of these data raises new questions which are detrimental to the procedural economy of the proceedings. Moreover, the new information provided by the appellant with the statement setting out the grounds of appeal does neither respond to essential points raised in the decision of the opposition, such as the observation that no comparison was made between a water-based and a non-water based formulation, nor does it appear suitable to resolve the inventive step issues.

Hence, none of the criteria of admissibility, i.e the complexity of the amendment, the suitability of the amendment to address the issues which led to the decision under appeal, and the need for procedural economy, speak in favour of admitting the the information on the experimental report on pages 17-18 of the statement of grounds of appeal.

Consequently, the information on the experimental report on pages 17-18 of the statement of grounds of appeal is not admitted into the appeal proceedings (Article 12(4) RPBA 2020).

2. Main request - Inventive step

- 2.1 The claimed invention relates to near anhydrous liquid detergent and conditioner products comprising encapsulated perfumes which are perfectly stable therein (cf. paragraph [0001] of the specification).
- 2.2 D7 discloses the preparation of a perfume encapsulated in a microcapsule prepared by standard polycondensation based on melamine/formaldehyde polymer (claims 15 and 16, page 9 last paragraph to page 10 second 2, reference examples 1 and 3). The outer surface of the shell may be coated with a cationic polymer, such as PVP/DMAEMA of trade name Gafquat® 755N, or PVP/methacrylamidopropyl trimethyl ammonium chloride of trade name Gafquat® HS100 (claim 23 and paragraph bridging pages 12 and 13). D7 also teaches that coated shell capsules comprising encapsulated perfume typically prevent perfume from leaking from the encapsulates when incorporated in a shampoo (page 16, first paragraph), which is also the purpose of the contested patent.

The compositions of D7 are preferably liquid products, more preferably water-based products (see D7, page 2, 2nd paragraph). D7 mentions also products such as laundry liquids and laundry powders, fabric detergents or household cleaners. In comparative examples 1 and 2, a comparison is made between a shampoo composition comprising more than 10% by weight of water, namely

around 80% by weight of water, and the microcapsule of reference example 1 with a similar shampoo composition comprising the microcapsules of respectively examples 1-3 and examples 4-7. However, none of the microcapsules of examples 1-7 have a cationic coating.

Example 14 and 15 of D7 disclose perfume containing microcapsules, comprising melamine/formaldehyde polymers, externally coated with PVP/DMAEMA. In said examples, the cationic coated microcapsules are prepared by addition of the cationic polymer after completion of the hardening of the capsules with a continuous agitation during 4 hours at 55°C. There is no disclosure of the incorporation of these cationic coated microcapsules in a composition.

D7 does not explicitly disclose liquid substantially non-aqueous cleaning or conditioning compositions having a content of water which is not above 10% by weight.

- 2.3 According to the appellant, the problem is the provision of an improved cleaning or conditioning composition having improved stability and olfactive performance.

According to the respondents and to the opposition division in its decision, the problem is the provision of an alternative composition comprising aminoplast type microcapsules.

- 2.4 As a solution to any of these problems, claim 1 of the main request proposes a composition with a content in water not above 10% by weight.

2.5 The appellant relies on the experimental data in the patent as granted, in particular example 3, and on the experimental data in the experimental report filed on 16 April 2021 to demonstrate the existence of a technical effect.

2.6 Experimental data in the patent as granted

The appellant considers in particular that examples 3, 4 and 5 of the patent make credible that the technical effect resulting from the presence of less than 10% by weight of water is an improved stability and performance of the microcapsules in cleaning or conditioning compositions. The appellant considers that the examples of the patent make credible that the stability, expressed by a reduction of perfume leakage, is significantly higher with an anhydrous liquid detergent of the invention.

The Board agrees that the examples of the patent show an effect linked with the amount of water. However, said examples do not relate to cationic coated microcapsules and are therefore not relevant for a comparison with the closest prior art already for this reason. Moreover, as also mentioned by the opposition division in its decision, the comparison is made between compositions which have strongly deviating formulations, with regard to the amount of microcapsules or detergent bases.

Consequently, the Board agrees with the opposition division that the examples of the patent are not appropriate to show an improvement over the closest prior art associated with the reduced amount of water in the compositions.

2.7 Experimental data in the experimental report of 16 April 2021

2.7.1 Table 1 of the experimental report shows a comparison of the olfactive performance after rubbing of uncoated and cationic coated melamine formaldehyde aminoplast type microcapsules as obtained in example 1 of the experiment. Both formulations have a water content of 9% by weight. The table provides data for fresh samples and samples stored for 3 days at 37°C.

Table 2 of the experiment makes the same comparison, but with compositions having a water content of 60%. This allows a direct comparison with the data of Table 1.

Tables 3 and 4 make the same kind of comparison between compositions comprising the same coated capsules and uncoated capsules in chambers having a water content of 8.5% or 60%.

The experimental report shows a better olfactive performance for the compositions having 9% or 8.5% by weight of water in comparison to the compositions comprising 60% by water. It also shows that the fresh samples had in all cases a better olfactive performance than the sample stored for 3 days at 37°C.

2.7.2 The respondents considered that the post-published experimental report could not be relevant according to G 2/21, since the olfactive performance or intensity was not related to the problem of the contested patent. The problem of the contested patent was the stability of the fragrance microcapsules, and the measurement of said olfactive performance was not related to or encompassed by this technical problem.

The Board disagrees with this argument. It is indeed obvious that the measurement of the olfactive performance of the composition is directly related to the stability of the microcapsules containing the fragrance. A decreased stability of the fragrance microcapsules involves obviously a decrease of the olfactive performance and the measurement thereof is a direct marker of the stability. In this regard, the Board observes that also in the patent the stability of the compositions is assessed by measuring the percentage of perfume leakage (see for instance examples 3 and 4). The argument of the respondents is therefore not convincing because the olfactive performance tested in the experimental report is regarded as encompassed by the technical teaching of the originally disclosed invention.

The Board notes however that the comparison between a composition comprising 60% by weight of water with a composition according to the invention comprising 9 or 8.5% is not suitable in the present case to substantiate the presence of an improvement over the prior art. When making a comparison with the closest prior art, the comparison must be such as to show convincingly that the alleged beneficial effects or advantageous properties are due to the distinguishing characteristic of the invention compared to the closest state of the art. Only comparative tests centered on the closest embodiment in relation to the invention are suitable for this purpose, because it is only from there that the unexpected effect must come (see T 197/86 or T 1962/12 point 1.5). This is not the case with the present report, wherein a comparison has been made with formulations having a water content of 60%, i.e. very far from the upper limit of water (10%)

defined in claim 1. The teaching of D7 is however not limited to compositions having high amounts of water. Page 2 refers even to anhydrous compositions or to toothpastes that normally contain low amounts of water. The use of a composition containing 60% of water as a comparative composition appears quite arbitrary and unsuitable to reflect the teaching of D7. Consequently, the experimental report does not appear to provide a valid comparison over the disclosure of the closest prior art.

2.8 Accordingly, the experimental data of the patent and of the experimental report are therefore do not credibly demonstrate the existence of a technical effect linked with an amount of water not above 10% by weight. Consequently, the problem is as defined by the respondents and the opposition division in its decision, namely the provision of an alternative composition comprising aminoplast type microcapsules.

2.9 It remains to be considered whether the skilled person faced with this technical problem would have arrived at the subject-matter of claim 1 in an obvious manner.

Considering that the problem to be solved has been defined as the provision of an alternative, it is established case law that the simple act of arbitrarily selecting one among equally obvious alternative variations is devoid of any inventive character.

As explained above, the teaching of D7 is not limited to the use of the (non cationic) coated microcapsules in the shampoo compositions of examples 1-7 having a content of water of around 80% by weight. The compositions of D7 may also be formulated as solid products and liquid products, which includes both

aqueous and non-aqueous liquids. This can be understood from the second paragraph of page 15 of D7 which lists a range of potential non-aqueous solvents of the compositions and also from the list of various examples of household products which may also be non-aqueous. The use of the microcapsules disclosed in D7 in an anhydrous composition is clearly contemplated in D7. The claimed subject-matter is therefore obvious in view of D7 alone.

2.10 Consequently, the claimed subject-matter lacks an inventive step and the main request does not meet the requirements of Article 56 EPC.

3. Auxiliary requests 1-3 - Inventive step

The amendments brought to the subject-matter of claim 1 of auxiliary requests 1-3, namely respectively the features "wherein said cationic coating is a cationic polymer coating" (auxiliary request 1), "wherein the cationic coated microcapsules are prepared via the use of cationic polymers and then incorporated in the composition" (auxiliary request 2), "a cosmetic or household consumer product comprising a liquid substantially non-aqueous..." and "wherein the cationic coated microcapsules are prepared via the use of cationic polymers and then incorporated in the product" (auxiliary request 3) do not provide any further distinguishing feature over the disclosure of D7.

The conclusion with regard lack of inventive step of the main request applies therefore also to auxiliary requests 1-3, and these requests do not meet the requirements of Article 56 EPC.

4. Auxiliary request 4 - Inventive step

The subject-matter of claim 1 of auxiliary request 4 has been amended by the feature "wherein the content in encapsulated perfume is comprised between 0.01 and 10% by weight of the total weight of the composition".

D7 discloses on page 2, line 2, that the fragrance composition comprises at least 0.1% by weight of one or more perfume materials. This amount is also present in examples 1-7 of D7, even if the compositions of said examples comprise a high amount of water (cf page 19, line 15, page 22, line 3).

In the absence of any surprising effect linked to this feature, the problem remains as for the main request, and the solution is obvious in view of the disclosure of D7. Auxiliary request 4 does not meet the requirements of Article 56 EPC.

5. Auxiliary requests 5-6 - Inventive step

The subject-matter of claim 1 of auxiliary request 5 and 6 has been restricted in the amount and nature of encapsulated perfume by the following features:

- "wherein the content in encapsulated perfume is comprised between 0.01 and 10% by weight of the total weight of the composition and wherein the perfume comprises at least 50% by weight relative to the total weight of perfume, of perfumery raw materials having a Clog P above 3.5 and a volatility below 50 µg/L (auxiliary request 5),
- "wherein the content in encapsulated perfume is comprised between 0.01 and 10% by weight of the total weight of the composition and wherein the perfume comprises between 5 and 30 % by weight of the total

fragrance of one or more perfumery raw material with Clog P above 5" (auxiliary request 6).

The amount of encapsulated perfume is known from D7 (cf. auxiliary request 4) and the type of perfume is the same in D7 and in the contested patent (see pages 7 and 8 of D7); the Clog is in particular disclosed in D7 on page 7, 3rd paragraph and on page 6 fourth paragraph. The passage of page 6 indicates that in a preferred embodiment, the encapsulated material is a perfume composition, which typically comprises at least 80% by weight of perfume materials having a partition coefficient of greater than 2.5, and less than 35%, preferably less than 20%, by weight of perfume materials having a partition coefficient greater than 5.

In the absence of any effect linked with these supplementary features, the problem remains the same as for the main request, and the solution is obvious in view of the disclosure of D7. Auxiliary requests 5 and 6 do not meet the requirements of Article 56 EPC.

6. Auxiliary request 7-8 - Inventive step

Claim 1 of auxiliary request 7 is restricted to "A single dose package comprising a consumer product consisting of a liquid detergent, a fabric softener, a shampoo, a liquid soap, a shower gel, a liquid all-purpose cleaner comprising a liquid substantially non-aqueous...".

Claim 1 of auxiliary request 8 relates to "A single dose package comprising a consumer product consisting of a liquid detergent or a fabric softener comprising a liquid substantially non-aqueous..." and was further

amended by the feature "and wherein the package is formed of polyvinyl alcohol (PVOH) or a mixture thereof with another water-soluble polymer".

No technical effect is associated with the single dose package and it is commonly known that detergent compositions can be packaged as a unit dose. As an example, D1 discloses detergents in unit dose formats (page 1 paragraph [0001] or [0011] of D1). It is also conventional in the art to make water-soluble detergent pouches with polyvinyl alcohol, either alone or in combination with another water soluble polymers, as again illustrated by D1 (see par. [0032]). The subject-matter of claim 1 of auxiliary requests 7 and 8 is therefore obvious and auxiliary requests 7 and 8 do not meet the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



B. Atienza Vivancos

A. Uselli

Decision electronically authenticated