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**Datasheet for the decision
of 23 April 2021**

Case Number: T 1149/20 - 3.3.07

Application Number: 17175853.5

Publication Number: 3305273

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A61Q5/12

Language of the proceedings: EN

Title of invention:
SHAMPOO CONTAINING A GEL NETWORK

Applicant:
The Procter & Gamble Company

Headword:
Shampoo containing a gel network / P&G

Relevant legal provisions:
EPC Art. 76(1), 123(2), 54, 56

Keyword:
Divisional application - subject-matter extends beyond content
of earlier application (no)
Amendments - allowable (yes)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

T 0714/08



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Case Number: T 1149/20 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 23 April 2021

Appellant: The Procter & Gamble Company
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 10 December
2019 refusing European patent application No.
17175853.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairwoman Y. Podbielski
Members: J. Lécaillon
E. Duval

Summary of Facts and Submissions

- I. The appeal was filed by the appellant (applicant) against the decision of the examining division to refuse the European patent application No 17175853.5, filed as a divisional application of the earlier application EP08856247.5.
- II. The decision was based on a main request filed on 25 March 2019 and an auxiliary request filed on 14 October 2019.

The main request contains 3 claims and the independent claim reads as follows:

"1. A shampoo composition comprising:

- a) from 5% to 50% of one or more deterative surfactants, by weight of said shampoo composition;
- b) a dispersed solid crystalline gel network phase comprising:

- i) a first component comprising at least 0.05% of one or more fatty acids by weight of said shampoo composition;

- ii) a second component comprising at least 0.05% of one or more additional fatty amphiphiles by weight of said shampoo composition wherein said fatty amphiphiles comprise fatty alcohols;

- iii) water; and

- c) at least 20% of an aqueous carrier, by weight of said shampoo composition;

wherein said first component is combined with said second component in the ratio of 10:1 to 1:5 to form said solid crystalline gel network phase;

wherein the one or more deterative surfactants comprise a deterative surfactant selected from anionic deterative

surfactants, zwitterionic deterative surfactants and amphoteric deterative surfactants; and wherein the shampoo composition is characterized by the absence of a secondary surfactant in the solid crystalline gel network phase."

III. The following documents were cited in the European search report or submitted by the examining division during the examination proceedings:

D2: US2006/0251605 A1
D7: EP0555690 A1
D16: WO 2007/040571 A1
D17: US 2006/269502 A1
D18: US 2007/110700 A1
D19: US 2007/110696 A1
D20: US 2006/024256 A1
D21: US 2001/047039 A1

IV. The examining division decided in particular as follows:

- (a) Claim 1 of the main request did not fulfill the requirements of Article 76(1) EPC because the amended features resulted in a double selection among equivalents which thus defined an individualised subgroup of compositions not disclosed in such specific terms in the original parent application.
- (b) Claim 1 of the main request had to be interpreted in such a way that the feature "absence of a secondary surfactant in the gel network phase" was not limitative for the final shampoo composition. This feature was thus not taken into account for the assessment of novelty. The documents D16-D20

consequently anticipated the subject-matter of claim 1 of the main request. Furthermore, D2, D7 and D21 implicitly disclosed compositions falling under the scope of claim 1 of the main request. The main request therefore lacked novelty.

(c) The additional features introduced in the auxiliary request were not supported by the original parent application and did hence not meet the requirements of Article 76(1) EPC.

V. The appellant requests that the decision under appeal be set aside and a patent be granted on the basis of the main request or one of the auxiliary requests 1 to 5, all requests having been filed with the statement setting out the grounds of appeal on 20 April 2020. The main request is identical to the main request on which the decision was based.

VI. The arguments of the appellant, as far as relevant for the present decision, can be summarised as follows:

(a) The amendments performed in claim 1 of the main request did not infringe the requirements of Article 76(1) EPC. The introduced features found individually basis in the original parent application, which further contained pointers to the combination thereof. No arbitrary selection among alternatives had been performed.

(b) The subject-matter of the main request was novel over D16-D20 because the feature relating to the absence of secondary surfactant in the gel network could not be disregarded. D2 did not disclose a composition comprising a dispersed solid crystalline gel network nor 5-50% by weight of

detergative surfactant. D7 did not disclose a dispersed solid crystalline gel network and D21 was limited to a liquid crystalline gel network.

- (c) Starting from D17 as closest prior art, the problem to be solved resided in the provision of a shampoo composition comprising a solid crystalline gel network phase which exhibited desirable crystallinity. The experimental data provided in the application substantiated that this problem had been solved by the claimed compositions. The prior art did not provide any indication to prepare a dispersed solid crystalline gel network without a secondary surfactant in order to solve said problem. The main request was thus inventive.

Reasons for the Decision

Main request

1. Amendments
- 1.1 Article 76(1) EPC
- 1.1.1 Claim 1 of the main request differs from claim 1 of the original parent application (EP08856247.5) as follows (additions and ~~deletions~~ emphasized by the Board):

"A shampoo composition comprising:

- a) from ~~about~~ 5% to ~~about~~ 50% of one or more detergative surfactants, by weight of said shampoo composition;
- b) a dispersed solid crystalline gel network phase comprising:

i) a first component comprising at least ~~about~~ 0.05% of one or more fatty acids by weight of said shampoo composition;

ii) a second component comprising at least ~~about~~ 0.05% of one or more additional fatty amphiphiles by weight of said shampoo composition wherein said fatty amphiphiles comprise fatty alcohols;

iii) water; and

c) at least ~~about~~ 20% of an aqueous carrier, by weight of said shampoo composition;

wherein said first component is combined with said second component in the ratio of 10:1 to ~~about~~ 1:5 to form said solid crystalline gel network phase;

wherein the one or more deterative surfactants comprise a deterative surfactant selected from anionic deterative surfactants, zwitterionic deterative surfactants and amphoteric deterative surfactants;

and wherein the shampoo composition is characterized by the absence of a secondary surfactant in the solid crystalline gel network phase."

1.1.2 The deletion of the term "about" was not objected to by the examining division. The Board agrees that this deletion does not infringe Article 76(1) EPC.

1.1.3 Concerning the three added features, namely (1) the specific nature of the fatty amphiphile, (2) the specific nature of the deterative surfactant and (3) the absence of a secondary surfactant in the solid crystalline gel network (SCGN) phase, the examining division stated that a literal basis existed in the original parent application for each feature individually. However the examining division considered that the combination of said features resulted in the definition of an individualised subgroup of compositions, due to multiple selections among

equivalents, which was not disclosed in such specific terms in the original parent application. In this context the examining division referred to decision T 714/08.

- 1.1.4 In decision T 714/08 the board held that the specific combination of one specific compound selected from a first list with 12 specific compounds selected from a second list resulted in the individualisation of 12 specific combinations not directly and unambiguously derivable from the original application. As a result the criteria of Article 123(2) EPC were not met.

However, it is also established case law that a combination of features originally disclosed separately or selected from several lists may still be directly and unambiguously derivable from the original application in the presence therein of explicit or implicit pointers to said specific combination (see Case Law of the Boards of Appeal of the European Patent Office, 9th Edition 2019, II.E.1.6.1 and II.E.1.6.2).

These principles apply *mutatis mutandis* to the assessment of compliance with the requirements of Article 76(1) EPC.

- 1.1.5 In the present case, the specification of the nature of the deterative surfactant in present amended claim 1 (amended feature (2)) finds basis on page 3 lines 29-30 of the original parent application. This definition of the deterative surfactant is made in a general manner and not in connection with any other particular embodiment. The Board is therefore satisfied that the skilled person would have understood said feature as applying to each and every composition of the invention. The combination of this feature with any

feature of present amended claim 1 is hence not considered to result in subject-matter not originally disclosed in the parent application.

- 1.1.6 Regarding amended feature (3), the Board observes that the original parent application clearly defines two alternative embodiments as reflected by the original set of claims containing two independent composition claims (see claims 1 and 6). Both embodiments pertain to shampoo compositions comprising a deterotive surfactant and a dispersed SCGN phase comprising one or more fatty acids. In the first embodiment (original claim 1 of the parent), the SCGN phase is defined as further comprising one or more fatty amphiphiles, while in the second embodiment (original claim 6 of the parent), the SCGN phase is defined as further comprising one or more secondary surfactants. The same main separate embodiments are disclosed on original page 6 lines 9-12 (using the conjunction "or" when defining the secondary component (ii): "selected from at least one secondary surfactant or an additionally fatty amphiphile") and page 7 lines 27-31 ("in one embodiment [...] combining one or more fatty acids with one or more secondary surfactants" and "In another embodiment [...] by combining one or more fatty acids with one or more additional fatty amphiphiles", emphasis added by the Board). The examining division argued that these embodiments, even though presented as alternatives, did not exclude the presence of both an additional amphiphile and a secondary surfactant in the SCGN phase. The Board notes that the original description of the parent application, after having disclosed each embodiment as an alternative, continues by describing the combination of both an additional amphiphile and a secondary surfactant as "yet another embodiment" on page 8 lines 10-14 (emphasis added by

the Board). The Board is therefore of the opinion that the skilled person reading the original description pages 6-8 would understand without any doubt that the two first embodiments described on pages 6-7 relate to SCGN containing as second component either an additional amphiphile or a secondary surfactant but not both. It follows that a composition comprising a SCGN phase containing one or more fatty acid and one or more additional amphiphiles in the absence of a secondary surfactant in the solid crystalline gel network phase (amended feature (3)) is directly and unambiguously derivable from the original parent application.

- 1.1.7 Furthermore, as underlined by the applicant, fatty alcohols (amended feature (1)) are disclosed among a list of possible additional fatty amphiphiles on page 10 lines 15-17 of the original parent application. While the original parent description does not explicitly specify that fatty alcohols are the preferred additional fatty amphiphiles, the Board notes that in all examples containing additional fatty amphiphiles the latter are fatty alcohols, and the gel network does not comprise any secondary surfactant (see gel network pre-mix examples 6, 7, 13 and 14). No other additional amphiphile has been exemplified. The Board hence considers that the skilled person would have directly and unambiguously derived from the original parent application that fatty alcohols are preferred additional fatty amphiphiles.

In any case the Board is of the opinion that, even in the absence of a pointer to fatty alcohols, starting from the embodiment disclosed on page 6-7 of the original parent application relating to a SCGN phase comprising one or more fatty acids and one or more additional amphiphiles in the absence of a secondary

surfactant, merely fatty alcohol would have to be selected to arrive at the presently claimed compositions (*i.e.* merely a one-fold selection). The Board cannot share the opinion of the examining division that the embodiment defining a SCGN phase comprising one or more fatty acids and one or more additional amphiphiles in the absence of a secondary surfactant would need to be independently selected. As explained above (see 1.1.6), this embodiment is already disclosed in individualised form in the original parent application. Additionally, the selection of fatty alcohols as fatty amphiphile necessarily entails the presence of this fatty amphiphile in the gel network, *i.e.* the selection of this embodiment.

- 1.1.8 The dependent claims 2-3 of the main request are based on claims 2-3 or page 15 lines 4 and 12-20 of the original parent application.
- 1.1.9 Accordingly the subject-matter of the claims of the main request meets the requirements of Article 76(1) EPC.
- 1.2 Article 123(2) EPC

The description of the present application as originally filed is identical to the original parent application. Furthermore claims 1-3 of the present application as originally filed correspond to claims 1-3 of the original parent application wherein the above feature (1) was added in claim 1. The subject-matter of the claims of the main request consequently fulfills the requirements of Article 123(2) EPC for the same reasons as detailed above (see 1.1).

2. Sufficiency of disclosure

The examining division did not raise any objection of lack of sufficiency of disclosure for the present main request. The Board agrees that the invention according to the claims of the main request fulfills the requirements of Article 83 EPC.

3. Novelty

3.1 Claim interpretation

3.1.1 The Board cannot share the opinion of the examining division that the feature "absence of secondary surfactant in the SCNG phase" should be disregarded, for the following reasons:

- (a) This feature is a technical feature of claim 1 which cannot be disregarded.
- (b) The skilled person would not consider that the fatty alcohols of the examples are also surfactants so that none of the examples fall under the amended claims. It appears indeed clear from the claims that the secondary surfactant is *per definition* different from the fatty alcohol as it is excluded from the claims while the fatty alcohol is explicitly included. Furthermore the description clearly distinguishes between fatty amphiphiles and secondary surfactants as being different components.
- (c) The passage on page 22 of the description merely defines an homogeneous dispersion of the gel in the aqueous phase *i.e.* still distinct phases. The Board cannot hence follow the argument of the examining

division that "any ingredient originally in the water phase", *i.e.* also a secondary surfactant for example, "will ultimately also be present in the gel phase". This issue does furthermore not constitute a reason to disregard an explicit feature of the claims.

3.1.2 Thus said feature has a limiting effect on the scope of the claims *i.e.* it cannot be disregarded when assessing novelty.

3.2 Novelty over D7 and D16-D20

3.2.1 D16-D20 (see D16 gel network pre-mixes 55-56, D17 ex 27-28, D18 and D20 ex 55-56, D19 ex 27-28) all describe shampoo compositions prepared by mixing a surfactant solution pre-mix with a SCGN containing a fatty acid and a fatty alcohol but further including behenyltrimethylammonium chloride, *i.e.* a secondary surfactant.

3.2.2 D7 discloses a shampoo composition comprising a deterative surfactant, a fatty alcohol and a fatty acid. D7 does not explicitly mention any SCGN phase but, in the examples, the ingredients are mixed at elevated temperature in an aqueous carrier before cooling, so that it could be considered as intrinsically formed. However the preferred embodiments (see dependent claims) and the specific examples of D7 (examples 1-2; see distearyldimonium chloride) all contain a quaternary ammonium (cationic surfactant), *i.e.* a secondary surfactant.

3.2.3 For the reasons detailed above (see 3.1), compositions containing a secondary surfactant are excluded from the scope of the present claims.

3.3 Novelty over D2

D2 discloses personal care compositions comprising surfactants containing fatty acids wherein a surfactant concentrate is first prepared before being re-diluted to obtain the final composition (see claim 1 and examples). Fatty alcohols are further possible surfactants (see claim 3 and examples). D2 does however not disclose any composition comprising 5-50% of cationic, zwitterionic or amphoteric deterative surfactant, as glycol stearate and glyceryl monostearate do not fall under this definition. Even if, as argued by the examining division, stearic acid would be considered as constituting said deterative surfactant, the Board observes that the maximal amount of stearic acid in the final composition would be 4.94% (stearic acid constitutes 49.4% of the total amount of surfactants and the final compositions contain 5 or 10% of total surfactants). D2 does thus not disclose a composition comprising from 5% to 50% of deterative surfactant according to claim 1 and at least 0.05% of fatty acid.

3.4 Novelty over D21

D21 discloses a skin moisturizer composition. The compositions 3 and 4 of example 1 contain indeed the present components but no details concerning their preparation are provided. A process is generally described in paragraphs [100]-[101]. In said process the water soluble agents are together in an aqueous phase and the lipophilic agents in an oil phase (including fatty acid and fatty alcohol). The oil phase is then heated, emulsified in the aqueous phase and the mixture is cooled down to form a liquid crystalline gel

network (not a solid one as in the present claims). The Board observes that, in D21, the fatty acid and fatty amphiphile are dissolved in an oil phase while in the present application the gel is formed in water. In view of the difference of solubility of fatty acids/alcohols in water and in an oil phase, it is consequently to be expected that the gel in D21 would be different from the presently claimed one. Contrary to the opinion of the examining division, the present process differs from the one of D21 due to the different solvents. It follows that it cannot be considered that the network of D21 and the present one would necessarily be identical and the explicit reference to a liquid gel network in D21 cannot be disregarded.

3.5 Accordingly the subject-matter of claim 1 of the main request is novel over the cited prior art.

4. Inventive step

4.1 *Closest prior art*

4.1.1 In agreement with the applicant, the Board considers D17 to represent the closest prior art.

4.1.2 D17 (*inter alia* paragraph [0008] and examples 27-28) describes shampoo compositions prepared by mixing a surfactant solution pre-mix with a SCGN containing a fatty acid and a fatty alcohol, which provide improved conditioning benefit for dry hair while not interfering with the cleansing efficacy.

4.2 *Distinguishing feature*

The present compositions differ from those of D17 in that a secondary surfactant is excluded from the dispersed solid crystalline gel network.

4.3 *Technical effect*

No particular effect directly linked to said distinguishing feature has been substantiated.

4.4 *Objective technical problem*

4.4.1 It follows that, starting from D17, the objective technical problem lies in the provision of an alternative shampoo composition comprising a solid crystalline gel network phase having good cleansing and conditioning properties.

4.4.2 The gel networks 6, 7, 13 and 14 have been shown to have a good equilibrated lamellar dispersion, which, according to the description, provides good wet and dry conditioning benefits (see tables on pages 21-22). The Board thus considers that this problem has been solved by the claimed compositions.

4.5 *Obviousness of the solution*

D17 as well as D7, D16 and D18-D20 teach compositions containing a secondary surfactant in the gel network in addition to the one or more fatty amphiphiles. The secondary surfactant is thus disclosed as essential in said documents. There is no indication in said documents that compositions containing only (a) fatty acid(s) and (a) fatty alcohol(s) in the SCGN would solve the problem posed. Furthermore, D2 and D21 do not

explicitly teach any SCGN, even less one specifically lacking a secondary surfactant. Therefore, when faced with the objective technical problem defined in point 4.4.1, none of the documents referred to by the examining division would have prompted the skilled person to modify the compositions of D17 by removing the secondary surfactant from the SCGN.

4.6 As a result the subject-matter of claim 1 of the main request fulfills the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

5. The decision under appeal is set aside.
6. The case is remitted to the examining division with the order to grant a patent on the basis of the set of claims of the main request filed on 20 April 2020 and a description to be adapted thereto.

The Registrar:

The Chairwoman:



B. Atienza Vivancos

Y. Podbielski

Decision electronically authenticated