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Datasheet for the decision of 16 November 2016

Case Number: T 0140/14 - 3.3.06

Application Number: 05797739.9

Publication Number: 1789012

IPC: A61Q19/10, A61K8/891

Language of the proceedings: EN

Title of invention:
WET WIPE LOTIONS COMPRISING PARTICULATE MATERIAL

Patent Proprietor:
The Procter & Gamble Company

Opponent:
Beiersdorf AG

Headword:
Wet wipe / P&G

Relevant legal provisions:
EPC Art. 100(a), 100(b), 83, 54, 56

Keyword:
Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - (yes)

This datasheet is not part of the Decision.
It can be changed at any time and without notice.

Decisions cited:
T 0190/90

Catchword:

This datasheet is not part of the Decision.
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Case Number: T 0140/14 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 16 November 2016

Appellant: (Opponent)	Beiersdorf AG Unnastrasse 48 20253 Hamburg (DE)
Respondent: (Patent Proprietor)	The Procter & Gamble Company One Procter & Gamble Plaza Cincinnati, OH 45202 (US)
Representative:	Mather, Peter Geoffrey Procter & Gamble Service GmbH IP Department Frankfurter Strasse 145 61476 Kronberg im Taunus (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 2 December 2013 rejecting the opposition filed against European patent No. 1789012 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	B. Czech
Members:	P. Ammendola
	C. Heath

Summary of Facts and Submissions

I. This appeal lies against the decision of the Opposition Division rejecting the opposition filed against European patent No. 1 789 012.

II. Claim 1 of the patent as granted reads as follows:

"*1. A wet wipe comprising a substrate that has been impregnated with a cleaning lotion, said cleaning lotion comprising an emollient, a surface active material, a rheology modifier and water, Characterized in that said cleaning lotion further comprises a particulate material at a concentration less than 2.5%, preferably less than 1.5%, more preferably less than 1.0%, wherein said particulate material has a mean particle size between 1 and 100 microns, preferably less than 75 microns, and said cleaning lotion has:*

a. a viscosity less than 100 centipoise *at a shear stress of 10 Pa, preferably less than 75 centipoises, more preferably less than 50 centipoise;*

b. a viscosity greater than 4000 centipoise at a shear stress of 0.05 Pa, preferably greater than 7000 centipoise, more preferably greater than 10,000 centipoise; and

c. a yield value at a shear stress greater than 0.05 Pa."

Dependent claims 2 to 9 as granted define more specific embodiments of the wet wipe of claim 1.

III. In paragraph [0023] of the description of the granted patent it is indicated with respect to the cleaning lotions of the invention that the three viscosity features "*a.*" to "*c.*" of claim 1 correspond to "*a non-Newtonian rheological profile*". In the same paragraph, it is also indicated that the viscosity values are "*measured*" according to a specific method disclosed in the subsequent "*TEST METHODS section*". Said method is described under the title "*Rheometry*" in paragraphs [0071] to [0076] and involves the use of a specific "cone and plate" rheometer.

Accordingly, the following abbreviations are used herein below:

- **the viscosity profile according to claim 1** refers to the simultaneous compliance of the lotion with the three viscosity criteria "*a.*" to "*c.*";
- **the specified rheometric method** refers to the measuring method described paragraphs [0071] to [0076] of the patent in suit;
- **the specified CAP rheometer** refers to the "**c**one **a**nd **p**late" rheometer (**CAP** rheometer**)** identified in paragraph [0072] as the apparatus used in said measuring method.

IV. The Opponent had requested revocation of the patent in its entirety on the grounds of lack of novelty and lack of inventive step (Article 100(a) EPC) and insufficiency of the disclosure (Article 100(b) EPC), relying *inter* alia on the following documents:

D1 = "Das Rheologie-Handbuch: für Anwender von Rotations- und Oszillations-Rheometern", T. Mezger, Vincentz Verlag, 2000, pages 206-207;

D3 = WO 96/06596 A1; and

D6 = "MORE SOLUTIONS TO STICKY PROBLEMS, A GUIDE TO GETTING MORE FROM YOUR BROOKFIELD VISCOMETER", BROOKFIELD ENGINEERING LABORATORIES INC., May 1985, Chapter 4, pages 13 to 17.

The Opposition Division also considered an experimental report (below **the experimental report**) filed by the Patent Proprietor with letter of 9 September 2013, comprising a comparison of the rheological profiles of the cleaning lotion of Example 1A of the patent in suit with a sample reproducing the cleaning lotion disclosed in Example 3 of document D3 (herein below **the experimental viscosity profile of D3/ex.3**).

V. In the decision under appeal, the Opposition Division came to the following conclusions:

- In the absence of evidence to the contrary, the disclosure in the patent in suit and the experimental report rendered plausible that the skilled person was able to prepare cleaning lotions which had the viscosity profile according to claim 1 when measured with the specified rheometry method. Whether or not this measuring method resulted in accurate viscosity values was considered to be of no relevance as regards sufficiency. The patent was thus sufficient.

- The experimental report demonstrated that the cleansing lotion of D3/ex.3 differed from the lotion exemplified in the patent in suit in terms of its viscosity profile and was "outside the scope of claim 1". D3 was thus not novelty-destroying.

- The person skilled in the art starting from D3/ex.3 as the closest prior art and seeking to provide an improved wet wipe would not modify the cleansing lotion

of D3 such as to arrive, in an obvious manner, at a wet wipe as claimed.

VI. With its statement of grounds of appeal the Appellant (Opponent) disputed the findings of the Opposition Division regarding sufficiency, novelty and inventive step, relying, *inter alia*, on D1, D3 and D6.

VII. In its reply the Respondent (Patent Proprietor) defended the patent in its granted version and rebutted all the Appellant's objections.

VIII. The Parties were summoned to oral proceedings.

IX. By letter of 4 October 2016 the Respondent informed the Board that it was not going to be represented at the forthcoming hearing.

X. Oral proceedings took place on 16 November 2016 in the absence of the Respondent.

XI. Requests

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

The Respondent requested in writing that the appeal be dismissed.

XII. The arguments of the Appellant may be summarised as follows.

Insufficiency

The patent in suit was insufficient for the following four reasons:

(i) It was impossible to determine the true rheological profile of cleaning lotions containing particles larger than 10 microns by means of the specified CAP rheometer (see also section "I)" at pages 2 to 3 of the statement of grounds of appeal).

More particularly, it was common general knowledge (as confirmed by D1) that the CAP rheometer specified in the patent could only be used for samples containing particles with a maximum particle size corresponding as "rule of thumb" to 1/5 of the gap between the tip of the cone and the plate. As indicated in the last paragraph on page 206 of D1, particles above such dimensions would not only limit the free-volume between the particles themselves in the measuring gap and interfere with the flowing and deformation behaviour (of the tested sample), but also generate more direct contact between the particles and the surfaces of the measuring apparatus and such frictional forces would "render false the measured results" (see "Messergebnis verfälschen" in the third last line of page 206 of D1).

Considering that in the specified CAP rheometer the gap between the tip of the cone and the plate was 52 microns, the viscosity profiles measured as indicated in the patent were meaningless for all embodiments of the lotion of claim 1 in which the particles were larger than 10 microns.

[Herein below the expression **large particles** is used to designate in particular these particles encompassed by the definition in claim 1 with mean particle size in the range of 10 to 100 microns.]

The same was also implicitly confirmed by the experimental viscosity profile of D3/ex.3. Indeed,

since the cleaning lotion of this Example contained all the mandatory ingredients of the lotion according to claim 1 in the required amounts, also its "true" viscosity profile had to be as claimed. Thus, the fact that the viscosity profile measured with the specified CAP rheometer showed instead no yield, could only be due to jamming in the gap (at the tip of the cone of the specified CAP rheometer) of the particles used in Example 3 (which had a diameter of about 45 microns).

(ii) Essential information was missing in the disclosure of the specified rheometry method (see also section "II)" at page 3 of the statement of grounds of appeal).

More particularly, D6 (sections 4.7.4 and 4.7.5) confirmed that the results of rheometric measurements depended significantly on the preceding ageing time as well as on any previous submission of the sample to shear forces or heating. However, the indications in the patent in suit concerning the rheometry method used did not refer to any processing step ensuring that the measured profiles were standardised (and, thus, reproducible), rather than being substantially affected by the sample "history", i.e. by the handling of the sample before (also immediately before) the actual rheometric measurement. In particular, the specified procedure did not mention the minimum resting or ageing time between the placement of the sample in the rheometer and the actual start of the rheometry. The absence of such information rendered meaningless the rheological profiles provided by the specified rheometry method.

(iii) The disclosure of the chemical composition of the cleaning lotions in the examples of the patent was

incomplete and/or unclear (see also section "IV)" of the statement of grounds of appeal, pages 4 to 5).

In particular, it was not even clear whether any of the cleaning lotions of the patent examples was actually in accordance with claim 1, because of the absence of explicit indications of the mean particle sizes of the particulates used. Nor was it clear whether one of them was the lotion corresponding to the non-Newtonian viscosity profile reported in Figure 1. Moreover, none of these examples could be precisely repeated because many ingredients thereof were only identified by trade names or by conventional functional names, and because of some contradictions in their description.

(iv) If the Board were nevertheless to conclude that the rheological profiles measurable with the specified CAP rheometer on lotions comprising particles larger than 10 microns were reliable, then the instructions in the patent in suit regarding the way to formulate cleaning lotions possessing the viscosity profile according to claim 1 had to be considered insufficient (see also the statement of grounds of appeal, page 5, section V).

Indeed, in case the Board were to conclude that the experimental viscosity profile of D3/ex.3 was meaningful (rather than an artefact caused by the jamming of the rheometer gap by the larger particles), then this viscosity profile would demonstrate that the required viscosity profile was not a direct consequence of the other features of claim 1. Since the patent in suit did not disclose what other measures could be taken in order to obtain a cleaning lotion of the invention with the viscosity profile according to claim 1, a research program was necessary to find out what

would have to be done in order to obtain a cleaning lotion as defined in claim 1. This amounted to an undue burden.

Lack of novelty

The subject-matter of claim 1 was not novel in view of D3, more particularly the cleansing composition described in Example 3, to be used via intermediate application to "a washcloth, a sponge, pad, cotton ball or other application device" (D3: page 29, lines 3 to 6). Example 3 of D3 comprised all the mandatory ingredients of the "*cleaning lotion*" as defined in claim 1 at issue. Hence, its "true" viscosity profile had to (inherently) meet criteria "*a.*", "*b.*" and "*c.*" of claim 1 at issue. Thus, the experimental viscosity profile of D3/ex.3 was an "artefact" unsuitable for establishing that this example did not fall within the scope of claim 1 of the patent in suit.

Lack of inventive step

Example 3 of D3 was the closest prior art.
Considering (*arguendo*) that the lotion of the wet wipe according to claim 1 differed from the one described in Example 3 of D3 in terms of its viscosity profile, there was no comparative data on file showing that any surprising technical effect was attributable to such different viscosity profile. Hence, the claimed subject-matter only solved the technical problem of providing a further wet wipe. The list of preferred "gelling agents" given in D3 also included compounds such as "xanthan gum" (D3: page 14, lines 29 to 30). Hence, it was obvious to solve the posed problem by replacing, in the closest prior art product, the gelling agent used therein (i.e. "Polyquaternium 37")

with e.g. xanthan gum. This latter was however also a preferred "*rheology modifier*" according to the patent in suit (penultimate line in paragraph [0055]). The person skilled in the art would thus arrive in this obvious manner at a lotion also having the viscosity profile according to claim 1 and, thus, to a wet wipe according to claim 1. The subject-matter of claim 1 merely being an obvious alternative to the prior art, it did not involve an inventive step.

XIII. The Respondent's counter-arguments, as submitted in writing, can be summarised as follows.

Sufficiency

As correctly concluded by the Opposition Division
- the skilled person could measure rheology as set out in the patent in suit and hence could generate a rheology curve, such as that shown in Figure 1 of the patent;
- CAP rheometry was well known to be also applicable to fluids containing particles;
- even though the skilled person would be aware that the particle size of the particulate might ultimately affect the accuracy of the specified rheometry method, this did not render the claimed invention insufficiently disclosed.

Novelty

The fact that the cleansing lotion of Example 3 of D3 contained a gelling agent ("Polyquaternium 37") apt to increase the viscosity of the lotion did not mean that this lotion also had to have a non-Newtonian viscosity profile according to claim 1 at issue. Hence, also the Appellant's argument that this prior art inherently

disclosed all the features of claim 1 was not cogent.

Inventive step

As correctly concluded by the Opposition Division D3 was the closest prior art and the technical problem solved was to provide an improved wet wipe. D3 differed from the claimed subject-matter in particular in that the viscosity profile of the lotion was different. The Appellant merely speculated about what the skilled person could have done, i.e. it did not correctly apply the problem-solution approach.

Reasons for the Decision

Patent as granted - Sufficiency of the disclosure

1. Requirements regarding sufficiency objections

According to established case law of the Boards of Appeal insufficiency objections presuppose that there are serious doubts, substantiated by verifiable facts (see e.g. T 19/90, OJ 1990, 476).

2. Claim 1 - meaning of the terms

2.1 Claim 1 at issue defines a wet wipe formed by a substrate impregnated with a cleaning lotion that has the claimed (non-Newtonian) viscosity profile and comprises, *inter alia*, a "*rheology modifier*" and a "*particulate material*" with a specified particle size and in a specified concentration.

2.2 According to the patent in suit, the three viscosity features "*a.*" to "*c.*", and the technical advantages of

the invention allegedly attributable thereto, result in particular from the simultaneous presence in the lotion of the "*rheology modifier*" (a compound also increasing the viscosity under no shear, see e.g. paragraph [0051]) and of the "*particulate material*". In this respect, reference is made in particular to the following parts of the patent in suit:

- in paragraph [0025]: "*... it is believed that the particulate material of the present invention cooperates with the rheology modifier to provide the collapsible structure that helps maintain a high low shear viscosity*";
- paragraph [0024] sets out the improvements in terms of properties attributable to the non-Newtonian viscosity profile of the cleaning lotion as defined in claim 1;
- in paragraph [0033]: "... *improved release is due to a provision of an increased low shear viscosity due to the inclusion of particulate material....*".
- in paragraph [0053]: "*... the rheology modifiers ... enhance the transfer of the lotion to the skin: The wiping movement increases the shear and pressure therefore decreasing the viscosity of the lotion and enabling a better transfer to the skin as well as a better lubrication effect*";
- in paragraph [0055] "*Preferred rheology modifiers exhibit ... high yield*"; and
- Table 1 of Example 2 features a comparison between two wet wipes comprising (lotion A) or not comprising (lotion B) a particulate material as defined in claim 1 (polyethylene microbeads), showing that (paragraph [0094]) "*... the cleaning lotion of the present invention makes more lotion available for the cleaning task*".

2.3 Hence, the Boards holds that the person skilled in the art reading claim 1 in the context of the patent as a whole understands that in particular the "*rheology modifier*" and "*particulate material*" of the invention must be such that the cleaning lotions comprising them display the viscosity profile according to claim 1 which provides, implicitly, the technical advantages allegedly attributable to such profile.

More particularly, it emanates from the passages quoted *supra* (e.g. from paragraph [0055]) that the "*rheology modifier*" according to claim 1 must implicitly have the "*high yield*" necessary to ensure the non-Newtonian character of the viscosity profile according to claim 1.

2.4 The above finding is further supported by the following teachings also contained in the patent in suit:

- The description of the patent in suit provides in the examples and in the general description abundant information as to preferred amounts and specific examples for each of the mandatory ingredients of the cleaning lotion of the invention, inclusive of lists of preferred "*rheology modifiers*" (in [0055] and [0056]) and of preferred "*particulate materials*" (in [0037] and [0038]).
- Paragraphs [0023] and [0071] to [0076] specify which rheometric method and CAP rheometer must be used for determining the viscosity profile of the cleaning lotions.
- Two rheological profiles of cleaning lotions are depicted in Figure 1: One of them refers to a not further specified lotion of the invention and shows the viscosity profile according to claim 1; see in paragraph [0025]: "*in Fig. 1 where curve 10 is a*

prior art lotion without particulate material and curve 20 is a cleaning lotion according to the present invention".

- The table in paragraph [0101] reports values in accordance with the features "*a.*" to "*c.*" measured by rheometry on a lotion of the invention.

2.5 The Board concludes that the skilled person upon reading the patent in suit will expect that cleaning lotions prepared using e.g. any of the preferred "*rheology modifiers*" and "*particulate materials*", in the preferred respective amounts also disclosed in the patent, indeed display the viscosity profile according to claim 1 when measured using the specified rheometric method. Already on the basis of this information, the skilled person should thus be able to easily carry out many embodiments of the subject-matter of claim 1.

3. The objections raised by the Appellant

The four reasons invoked as regards the alleged insufficiency (items "(i)" to "(iv)" under XII, *supra*) are dealt with in sequence below.

3.1 Reason (i): the impossibility of determining by means of the specified CAP rheometer the "true" rheological profile of cleaning lotions containing large particles.

3.1.1 The Appellant argued that for all those cleaning lotions according to claim 1 wherein the particulate material had a larger mean particle size of between 10 and 100 microns, the rheological profiles (of such lotions) obtainable by the specified CAP rheometer were a meaningless "artefact". Thus the skilled person would find it difficult or even impossible to prepare embodiments of the invention comprising cleaning

lotions with large particles. In this line of reasoning the Appellant referred to the disclosure in D1 and to the experimental viscosity profile of D3/ex.3.

3.1.2 The Board firstly notes that there is no experimental evidence on file illustrating difficulties possibly encountered in preparing cleaning lotions of the invention having the viscosity profile according to claim 1 with or without large particles.

3.1.3 The Board secondly notes that the common general knowledge summarised in D1 is rather vague: In D1 it is merely stated that the viscosity values measured with CAP rheometers on samples comprising particles with dimensions above 1/5 of the dimensions of the gap between the tip of the cone and the plate would distort the measured results ("das Messergebnis verfälschen"). However, the extent and/or the kind of the alteration of the measured viscosity values caused by large particles cannot be predicted on that basis. What may be assumed is that when the specified CAP rheometer is used to determine the viscosity profile of lotions containing large particles, the viscosity values measured (and, thus, the whole viscosity profiles) are affected by some unspecified alterations of unknown degree/significance.

3.1.4 Thirdly, the Board considers that serious doubts regarding sufficiency would only be justified if it were plausible that the alterations caused by large particles would render it very difficult or even impossible to determine the occurrence of the viscosity profile according to claim 1 in cleaning lotions of the invention containing large particles.

However, the alterations of the rheological profile

that the vague wording in D1 associates to large particles might as well be rather limited compared to the "true" rheological profiles of the lotion, e.g. so limited that the altered rheological profiles measured on the lotions obtainable, for instance, using the preferred amounts and types of rheology modifiers and particulate materials disclosed in the patent, would nevertheless still be in accordance with claim 1.

3.1.5 Hence, for the Board, the rather vague wording of D1 *per se* is not sufficient to deprive of plausibility the expectation of the person skilled in the art reading the patent in suit that cleaning lotions prepared using the preferred ingredients disclosed in the patent,and in particular those with the preferred mean particle size of 10 to 30 microns referred to in paragraph [0037]) would display the viscosity profile according to claim 1 when measured using the CAP rheometer.

3.1.6 In this connection it is not relevant as regards sufficiency of the disclosure whether or not the viscosity profiles according to claim 1, measured with the specified CAP rheometer, are "true" profiles (using the terminology adopted by the Appellant) of the tested lotions. According to the patent in suit, the viscosity features must be measured with the specified rheometry method. Hence, any cleaning lotions prepared using the ingredients disclosed in the patent (also those lotions that contain large particles) for which the specified rheometry method gives as the result a viscosity profile according to claim 1, can be used in carrying out the invention, irrespective of whether the so-determined viscosity profiles are altered or "true".

3.1.7 For the Board, the experimental rheological profile of D3/ex.3 (lotion undisputedly containing large

particles) does not convincingly establish that alterations caused by large particles would render it very difficult, or even impossible, to determine the occurrence of the viscosity profile according to claim 1 in a cleaning lotions as defined in claim 1 containing larger particles. More particularly, this finding of the Board is based on the following considerations:

- For the Appellant the cleaning composition of D3/ex.3 is a cleaning lotion as defined in claim 1 at issue simply because it comprises all the mandatory ingredients of the cleaning lotion mentioned in claim 1 at issue, in the required amounts. The Appellant thus considers that the experimental viscosity profile of D3/ex.3 as measured by the Respondent must be an "artefact" caused by the jamming of the rheometer gap section by the larger particles.

- However, as mentioned *supra*, the "*rheology modifier*" must have the "*high yield*" necessary to ensure that the cleaning lotion displays the non-Newtonian characteristics of the viscosity profile according to claim 1.

- In D3/ex.3, the ingredient "Polyquaternium 37" is identified in this citation as an example of a "gelling agent" (see D3, page 12, lines 19 to 23), i.e. its only mandatory property is that it must increase the viscosity of the composition.

- This "gelling agent" used in D3/ex.3 is <u>not</u> included in the list of specific compounds identified in the patent in suit as preferred "*rheology modifiers*", presumably capable of

providing the non-Newtonian rheological profile to the lotions.

- Hence, for the Board, there is no information in D3 or in the patent in suit possibly rendering plausible that the compound used as "gelling agent" in Example 3 of D3 is necessarily a "*rheology modifier*" within the meaning of claim 1 at issue.

If only for this reason, the Board holds that the experimental viscosity profile of D3/ex.3 is not necessarily a consequence of alterations of the measured viscosity values caused by large particles. As convincingly argued by the Respondent, the difference between such profile and the claimed one could indeed simply be due to the unsuitability of the gelling agent used to generate a composition with a non-Newtonian profiles, i.e. to act as a "*rheology modifier*" within the meaning of claim 1.

Accordingly, the Board sees no compelling reason for concluding that the experimental viscosity profile of D3/ex.3 is an irrelevant "artefact" due to the presence of the large particles.

3.1.8 Thus, the Appellant did not convince the Board that the specified CAP rheometer does not permit the determination of the occurrence of the viscosity profile according to claim 1 in cleaning lotions containing large particles and that, thus, the skilled person would find it difficult or even impossible to prepare embodiments of the invention comprising such cleaning lotions.

3.2 Reason (ii): the absence of essential information as regards the specified rheometric method.

3.2.1 According to the Appellant the disclosure in the patent in suit is also insufficient in that it contains no information on how to avoid that the measured profile is influenced by the sample history, i.e. its handling before (also immediately before) the start of the actual rheometry measurement. Considering the generally known possibility of such influence (summarised in D6), the viscosity profiles measurable by the specified rheometry method were meaningless.

3.2.2 The Board accepts as plausible that the rheological profile measured according to the specified rheometry method might be influenced by e.g. the length of the "resting time" elapsing between the introduction of the sample in the specified CAP rheometer and the actual start of the rheometric measurement. However, the Board holds sufficiency can only be called into question provided said it is proven that this influence is of a certain severity.

3.2.3 However, there is no evidence on file that allows to quantify, at least approximately, the possible influence of the sample history on its rheological profile. Hence, the Board holds that the mere knowledge that rheometric measurements can be influenced to an undetermined extent by the history of the tested sample is not sufficient to render plausible that the person skilled in the art would encounter serious difficulties in preparing and identifying lotions composed such as to display the viscosity profile according to claim 1.

3.2.4 The Board considers it appropriate to additionally stress that the person skilled in the art must be presumed not only to be aware of common general knowledge (e.g. as summarised in D1 and D6) as to the factors which may affect (e.g. the reproducibility or the accuracy) the rheometry using the CAP rheometer,

but also to have some experience in performing measurements using such method, also with samples having viscosity characteristics similar to those of cleaning lotions as defined in claim 1. Thus, the person skilled in the art will also know and apply measures, if necessary, which are conventionally taken in such cases in order to render the rheometry results acceptably reproducible.

In other words, if a "resting time" is conventionally applied to viscous samples between their placement in a rheometer and the start of the actual rheometric measurement, then the skilled person attempting to carry out the invention will do the same, regardless of whether such resting step is explicitly mentioned in the patent in suit.

3.2.5 Hence, reason (ii) as presented by the Appellant in support of the objection of insufficiency of disclosure does not convince the Board, either.

3.3 Reason (iii): the disclosure of the chemical composition of the cleaning lotions in the patent examples is allegedly incomplete and/or unclear.

3.3.1 The Board accepts that the examples are incomplete in the sense that they do not comprise an explicit indication of the mean particle size of the particulate material used.

3.3.2 However, Articles 83 and 100(b) EPC only require that the skilled reader must be able to carry out (embodiments of) the invention.

3.3.3 As already mentioned above, the patent in suit provides many examples of suitable ingredients and amounts

thereof to be preferably used in preparing the cleaning lotions of the invention, as well as evidence that the viscosity profile according to claim 1 has been observed in at least some cleaning lotions according to the invention. In the absence of any evidence to the contrary, the Board sees no reason for considering that the person skilled in the art could encounter serious difficulties in attempting to prepare a lotion according to the invention, even when using a particulate material of a large mean diameter, see above 3.1.2 to 3.1.8).

Hence, even though the examples of cleaning lotions in the patent are only described in incomplete and/or unclear manner, the Board holds that the omitted information is not necessary when attempting to reproduce embodiments of the invention.

3.3.4 Accordingly, reason (iii) presented in support of the insufficiency objection is not convincing either.

3.4 Reason (iv): if the Board were to conclude that the rheological profiles measurable with the specified CAP on lotions comprising large particles are reliable, then the instructions in the patent in suit as to how to formulate cleaning lotions possessing the viscosity profile according to claim 1 had to be considered insufficient.

3.4.1 This line of argument is also based on the allegation that all ingredients indicated as mandatory in claim 1 were present in the required amounts in Example 3. Thus, if the Board were not to consider the experimental viscosity profile of D3/ex.3 as a mere artefact due to the large particles present therein, but as being representative of the "true" viscosity

profile of the tested lotion, then this profile would prove that the presence of the ingredients indicated as mandatory in claim 1 was insufficient to ensure that the viscosity profile according to claim 1 was necessarily achieved. Hence, and in the absence of any other teachings in the patent specification, the skilled person had to perform a research program in order to identify which measures favoured the achievement of a viscosity profile as defined in claim 1.

3.4.2 However, the "gelling agent" in D3/ex.3 is not necessarily a "*rheology modifier*" within the meaning of the patent in suit (3.1.7, *supra*) in the sense of the patented invention.

Thus, not all ingredients indicated as mandatory in claim 1 are present in this Example.

3.4.3 Hence, if only for this reason, also the line of argument (iv) submitted in support the insufficiency objection is found unconvincing.

3.5 Based on the above considerations the Board sees no reason for reversing the finding of the Opposition Division that the invention as claimed can be carried out by the person skilled in the art based on the disclosure of the patent in suit and, thus, is sufficiently disclosed (Articles 100(b) and 83 EPC).

Claim 1 as granted - Novelty

4. The Appellant's only novelty objection is based on document D3 (Example 3 in combination with the indication "a suitable amount of the cleansing composition can be applied via intermediate application

to a washcloth, a sponge, pad, cotton ball or other application device" on page 29, lines 3 to 6) and directed against claim 1 as granted.

4.1 In particular, this objection is based on the assumption that the cleanser described in Example 3 of D3 comprised all the ingredients of the cleaning lotion defined in claim 1 at issue, in relative amounts as prescribed by this claim. Thus, its "true" viscosity profile had necessarily to be that defined in claim 1.

The experimental viscosity profile of D3/ex.3 was only an artefact, not representative of the "true" non-Newtonian viscosity profile of this lotion of the prior art.

4.2 However (for the reasons set out under 3.1.7, *supra*) it is not apparent that the "*gelling agent*" used according to D3/ex.3, i.e. "Polyquaternium 37", must be considered as a "*rheology modifier*" within the meaning of claim 1 (see also 2.3, *supra*).

Thus, not all ingredients indicated as mandatory in claim 1 are present in this Example.

4.3 Moreover, based on the considerations made at 3.1.6, *supra*, it is also irrelevant whether or not the rheological profile of Example 3 is actually affected by alterations caused by the presence of large particles. The rheological profile of Example 3 has expressly been determined using the specified rheometry method defined in the patent in suit as the method that must be used to ascertain whether a cleaning lotion displays the viscosity profile according to claim 1 or not.

Hence, the experimentally determined rheology profile of Example 3 demonstrates that Example 3 of D3 does not have the viscosity profile according to claim 1.

4.4 If only for these reasons the Board comes to the conclusion that Example 3 of D3 does not directly and unambiguously disclose a lotion with all the features of the lotion described in claim 1 at issue.

4.5 Accordingly, the Board also finds that the prior art disclosed in D3 referred to by the Appellant is not novelty-destroying for the wet wipe of claim 1 at issue.

4.6 Hence, in the Board's judgement, the subject-matter of claim 1 is novel over D3 (Articles 100(a), 52(1) and 54(1)(2) EPC).

Claims as granted - Inventive step

5. The invention

The invention relates to wet wipes impregnated with cleaning lotions, such as those useful for personal hygiene (patent in suit, paragraphs [0001] and [0002].

6. The closest prior art

It is common grounds between the parties that a substrate of the type referred to on page 29, lines 3 to 6, to which the cleansing composition of D3/ex.3 is applied represents the closest prior art. Considering the similarities between the subject-matter of the claims at issue and the products disclosed in D3 in terms of their technical purpose and product features, the Board sees no reason for taking a different stance.

7. The technical problem

7.1 As apparent from several passages in the description (compare [0003] and [0004] with [0024], [0033], [0053] and [0054]) the main aim of the present invention is to provide a wet wipe superior to the wet wipes of the prior art in several aspects, in particular in terms of an improved transfer of the lotion to the surface to be cleaned (skin) upon use of the wipe (see paragraph [0024]).

7.2 Accordingly, the Respondent submitted (see reply to the statement of grounds of appeal, page 2, point "10") that in the light of the closest prior art as illustrated by D3/ex.3, the technical problem consisted in providing an "improved wet wipe".

8. The proposed solution

As a solution to said technical problem the patent in suit proposes the "*wet wipe*" of claim 1 "*comprising a substrate impregnated with a cleaning lotion*", which is characterised in particular in that the aqueous cleaning lotion comprises a "*rheology modifier*" and "*a particulate material at a concentration less than 2.5% ... wherein said particulate material has a mean particle size between 1 and 100 microns*", and has the viscosity profile according to claim 1 (i.e. meets criteria "*a.*", "*b.*" and "*c.*"; see full wording of claim 1 under II, *supra)*.

9. The success of the solution

9.1 As correctly observed by the Appellant, there is no experimental comparison on file showing that the claimed wet wipes are actually improved in comparison

to the product disclosed in D3. In its opinion, the technical problem solved could thus only be seen in the provision of a further wet wipe, i.e. of an alternative to the prior art.

9.2 However, the absence of such an experimental comparison is not sufficient, in the present case, to call into question the credibility of the statements in the patent in suit as to the technical advantages attributable to the viscosity profile of the cleaning lotion required according to claim 1:

9.2.1 As pointed out under 2.2, *supra,* it is the simultaneous presence in the lotion of both the specific "*particulate material*" and the "*rheology modifier*" that is responsible for the good properties of the claimed wet wipe. The corresponding statements in the patent have a clear technical meaning and are plausible.

9.2.2 In this respect , the Board moreover notes the following:

- In [0024] the technical advantages mentioned in the patent in suit are explicitly attributed to the viscosity profile according to claim 1, i.e. a non-Newtonian viscosity profile characterised by high viscosity at low shear and low viscosity at high shear. Thus, also the final wording in that paragraph reading "....*improved compared to wet wipes of the prior art*" must mean that the prior art to which the patent refers and which sets the level of the properties vis-à-vis wich superior levels of the relevant properties are invoked is formed by wet wipes in which the lotions do not possess the viscosity profile according to claim 1. Such wet wipes include the ones disclosed by D3

(even though this document is not acknowledged as prior art in the patent in suit).

- As mentioned under 2.3, *supra*, the "*rheology modifiers*" must have the "*high yield*" necessary to ensure the non-Newtonian character of viscosity profile required by claim 1 at issue.

9.2.3 Furthermore, the patent in suit discloses (see Figure 2 in combination with the description of the "*Lotion Release Test*" in [0067] to [0070]) a method and an apparatus for measuring, and thus comparing, the extent of lotion transfer provided by different wet wipes. This method was applied in Example 2, which confirms that the simultaneous presence of both the "*particulate material*" and the "*rheology modifier*" results in a better lotion release (0.44 versus 0.26 g) as compared to the use of the same lotion comprising no "*particulate material*".

9.3 In the light of the disclosure in the patent in suit the Board thus considers plausible that the claimed wet wipes are indeed improved, at least insofar as they achieve a lotion release increased in comparison to similar wet wipes wherein the cleaning lotion does not comprise both these ingredients and does not, thus, also display the viscosity profile required according to claim 1.

9.4 As already mentioned *supra*, the experimental viscosity profile of D3/ex.3 demonstrates that this prior cleansing lotion does not have the viscosity profile according to claim 1 and the "gelling agent" present therein is not necessarily a "*rheology modifier*" as required by claim 1 at issue.

Hence, in the absence of corroborating experimental evidence, there is no reason for presuming that a wet wipe as disclosed by D3 displays a level of "lotion release" comparable to that achieved using a wet wipe according to claim 1 at issue.

9.5 The Board concludes that the subject-matter of claim 1 effectively solves the technical problem posed (7.2, *supra*).

A reformulation of the technical problem solved is thus not appropriate in the present case.

10. Non-obviousness of the solution.

10.1 The wet wipe of claim 1 differs from a wet wipe according to D3 comprising the cleanser of Example 3 of D3 at least in terms of the (non-Newtonian) viscosity profile of the cleaning lotion and, thus, in that it mandatory comprises a "*rheology modifier*" apt to provide, together with the "*particulate material*", such profile.

10.2 In the prior art documents invoked, no particular attention is paid to the amount of cleansing lotions released onto the skin upon use of a wet wipe, let alone to the bearing that the lotion's viscosity has on the amount released.

10.3 Hence, nothing in the prior art induces the person skilled in the art to solve the posed technical problem by modifying the viscosity profile of the cleaning lotion of D3/ex.3 such as to impart to it a viscosity profile according to claim 1 at issue, let alone by replacing the "gelling agent" of D3/ex.3 by a"*rheology*

modifier" within the meaning of the patent in suit.

10.4 The Board holds that mere fact that "xanthan gum" is mentioned in D3 as a possible "gelling agent" does not as such prompt the person skilled in the art seeking to improve the lotion release of the wet wipe, to replace the gelling agent used according to D3/Example 3, i.e. "Polyquaternium 37", with "xanthan gum", mentioned as alternative gelling agent in D3.

10.5 Hence, starting from the closest prior art, the skilled person seeking to solve the technical problem posed would not, without hindsight, arrive at a wet wipe falling within the ambit of claim 1 as granted in an obvious manner. In the Board's judgement, the subject-matter of claim 1 thus involves an inventive step (Articles 100(a), 52(1) and 56 EPC).

Conclusion

11. None of the grounds and arguments invoked by the Appellant justifies setting aside the decision under appeal.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Magliano B. Czech

Decision electronically authenticated