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Datasheet for the decision of 14 October 2019

Case Number: T 1621/16 - 3.3.06

Application Number: 09163237.2

Publication Number: 2264138

IPC: C11D17/00, C11D3/33, C11D3/36, C11D1/83, C11D1/94

Language of the proceedings: EN

Title of invention:
Liquid hand dishwashing detergent composition

Patent Proprietor:
The Procter & Gamble Company

Opponents:
Colgate-Palmolive Company
Henkel AG & Co. KGaA

Headword:
Hand dishwashing/Procter&Gamble

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

Keyword:
Amendments - mutliple selections from lists of converging alternatives - allowable (yes) - intermediate generalisation
Inventive step - (yes)

Decisions cited:
T 0812/09, T 2237/10, T 0027/16, G 0001/93, T 0727/00, T 2273/10, T 0615/95

Catchword:
1) When fall-back positions for a feature are described in terms of a list of converging alternatives, the choice of a more or less preferred element from such a list should not be treated as an arbitrary selection, because this choice does not lead to a singling out of an invention from among a plurality of distinct options, but simply to a subject-matter based on a more or less restricted version of said feature.

2) A claim amended on the basis of multiple selections from lists of converging alternatives might be considered to meet the requirements of Article 123(2) EPC if:
- the subject-matter resulting from the multiple selections is not associated with an undisclosed technical contribution, and
- the application as filed includes a pointer to the combination of features resulting from the multiple selections.

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Case Number: T 1621/16 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 14 October 2019

Appellant: (Patent Proprietor)	The Procter & Gamble Company One Procter & Gamble Plaza Cincinnati, OH 45202 (US)
Representative:	Gill Jennings & Every LLP The Broadgate Tower 20 Primrose Street London EC2A 2ES (GB)
Respondent: (Opponent 1)	Colgate-Palmolive Company 200 Park Avenue New York, NY 10022 (US)
Representative:	Jenkins, Peter David Page White & Farrer Bedford House John Street London WC1N 2BF (GB)
Respondent: (Opponent 2)	Henkel AG & Co. KGaA Henkelstrasse 67 40589 Düsseldorf (DE)
Representative:	Henkel AG & Co. KGaA CLI Patents Z01 40191 Düsseldorf (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 10 May 2016 revoking European patent No. 2264138 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	J.-M. Schwaller
Members:	S. Arrojo
	R. Cramer

Summary of Facts and Submissions

I. In its grounds of appeal the patentee (from now on "the appellant") requested to set aside the decision of the opposition division - to revoke European patent Nr. 2 264 138 for non-compliance with the requirements of Articles 123(2) and 56 EPC - and to maintain the patent as granted or, alternatively, in amended form on the basis of one of auxiliary requests 1-16 filed together with the statement of grounds of appeal.

II. No reply was received from the opponents.

III. In reply to the board's preliminary opinion that inter alia certain requests did not appear to comply with the requirements of Article 123(2) EPC, the appellant maintained all the requests then on file and argued against the objections raised under Article 123(2) EPC.

IV. No reply as to the substance was received from the opponents.

V. At the oral proceedings, where opponent 1 was not represented, the discussion focused on auxiliary requests 16 and 5 (discussed in this order) and whether they met the requirements of Articles 123(2) and 56 EPC, in particular in view of the disclosure of document D1 (US 2004/005991).

Following the board's conclusion that auxiliary request 5 appeared to comply with the requirements of the EPC, the appellant withdrew the main request and auxiliary requests 1-4 and filed a new main request (based on auxiliary request 5 with some minor modifications), with claim 1 thereof reading as follows:

"1. A liquid hand dishwashing detergent composition comprising:
(a) from 0.2% to 3% by weight of the total composition of glutamic-N, N-diacetic acid;
(b) from 15% to 25% by weight of the total composition of an anionic surfactant selected from the group consisting of alkyl sulfates and/or alkyl ethoxy sulfates with a combined ethoxylation degree of less than 5;
(c) from 3% to 20% by weight of the total composition of a nonionic surfactant selected from the group consisting of C8-C22 aliphatic alcohols with 1 to 25 moles of ethylene oxide; and
(d) from 0.5% to 10% by weight of the total composition of a surfactant selected from the group consisting of amine oxide and betaine surfactants and mixtures thereof,
wherein total surfactant level is from 18% to 45% by weight of the total composition, and
wherein the weight ratio of total surfactants to nonionic surfactant is from 2 to 10."

VI. After closure of the debate, the final requests of the parties were as follows:

The **appellant** requested to set aside the decision and to maintain the patent in amended form on the basis of the new main request filed during the oral proceedings.

Opponent 2 (from now on "**respondent 2**") requested that the appeal be dismissed.

Reasons for the Decision

1. Main request - Article 123(2) EPC

1.1 The board has concluded that this request complies with the requirements of Article 123(2) EPC.

1.2 Claim 1 as originally filed read as follows:

"1. A liquid hand dishwashing detergent composition comprising:
(a) from 0.1 % to 20% by weight of the total composition of a chelant,
(b) from 18% to 80% by weight of the total composition of a surfactant selected from the group consisting of anionic, nonionic, cationic, amphoteric, zwitterionic, semi-polar nonionic surfactants and mixtures thereof; and
(c) a nonionic surfactant;
wherein the weight ratio of total surfactants to nonionic surfactant is from 2 to 10."

1.3 In comparison to above claim, claim 1 of the main request has been amended as follows:

"*1. A liquid hand dishwashing detergent composition comprising:*
*(a) from ~~0.1 % to 20%~~ **0.2% to 3%** by weight of the total composition of ~~a chelant~~ **glutamic-N, N-diacetic acid;***
*(b) from ~~18% to 80%~~ **15% to 25%** by weight of the total composition of ~~a surfactant selected from the group consisting of anionic, nonionic, cationic, amphoteric, zwitterionic, semi-polar nonionic surfactants and mixtures thereof~~ a**n anionic** surfactant selected from*

the group consisting of alkyl sulfates and/or alkyl ethoxy sulfates with a combined ethoxylation degree of less than 5;

(c) ***from 3% to 20% by weight of the total composition of*** *a nonionic surfactant* ***selected from the group consisting of C8-C22 aliphatic alcohols with 1 to 25 moles of ethylene oxide; and***

(d) from 0.5% to 10% by weight of the total composition of a surfactant selected from the group consisting of amine oxide and betaine surfactants and mixtures thereof,

wherein total surfactant level is from 18% to 45% by weight of the total composition, *and*

wherein the weight ratio of total surfactants to nonionic surfactant is from 2 to 10."

1.4 The appellant argued that the amendments were based on multiple selections from lists of converging alternatives (i.e. lists of options ranked from the least to the most preferred, wherein each of the more preferred alternatives is fully encompassed by all the less preferred and broader options in the list), and that these should not be considered to be equivalent to selections from lists of non-converging elements (i.e. mutually exclusive or partially overlapping alternatives), because selecting more or less preferred options did not lead to a singling out of an invention from among distinct alternatives but to more or less restricted versions of a single invention. The appellant also argued that selections from lists of converging alternatives were analogous to deletions of elements from lists, which according to established case law (T 615/95, Reasons, points 4.3 and 6) represented a restriction of the scope of protection and were allowable under Article 123(2) EPC.

1.5 Arguments against the allowability of the amendments to claim 1:

1.5.1 Respondent 2 and the opposition division argued that amendments based on the selection of at least two intermediate options (i.e. different from the most preferred) from lists of converging alternatives infringed Article 123(2) EPC. Lists of converging and non-converging alternatives had to be treated in a similar way, because the convergence could only be considered to provide a specific pointer to the most preferred options. In other words, if multiple selections of less preferred options were allowed, it would be impossible to determine *a priori* which combination of alternatives would ultimately be selected for defining the scope of protection. Thus, since claim 1 of the contested patent was based on combining several more and less preferred options, its subject-matter did not comply with the requirements of Article 123(2) EPC.

1.5.2 Respondent 2 further argued that the application as filed included a large number of equally ranked optional alternatives which had been used to amend claim 1. These amendments had to be treated as arbitrary selections, because they were based on picking one element from among several available alternatives, and there was no indication in the application as filed as to which of these options was most preferred. For example, the surfactants in point (d) had been arbitrarily added to claim 1 from among a plurality of optional components which could have been selected instead, and the specific chemical composition of the anionic and nonionic surfactants had been used to amend points (b) and (c) of claim 1 from among multiple aspects which could have been used (e.g. the

branching degree) to further restrict the scope of these surfactants. Furthermore, the multiple selections on which claim 1 was based led to a specific combination of features which was not clearly and unambiguously supported by the content of the application as filed.

1.5.3 Finally, respondent 2 argued that defining specific anionic and nonionic surfactants while omitting their branching degree in claim 1 represented a non-allowable intermediate generalisation of the content of the application as filed. In particular, in each of the 21 examples of the original application, both the nonionic and the anionic surfactants were branched at least to a certain degree, indicating that this feature was an essential part of the invention and inextricably linked to these two types of surfactants.

1.6 Case law - Article 123(2) EPC and selections from lists

1.6.1 The idea underlying Article 123(2) EPC is that an applicant or patent proprietor should not be allowed to improve its position by adding subject-matter not disclosed in the application as filed, as this would give rise to an unwarranted advantage and could be damaging to the legal security of third parties relying on the content of the original application (see G 1/93, OJ EPO 1994, 541, Reasons, point 9).

1.6.2 It is established case law that, under certain circumstances, amendments based on multiple arbitrary selections from lists represent an extension of the content of the application as filed under Article 123(2) EPC (see e.g. T 727/00, Reasons, point 1.1.4).

1.6.3 The board notes, however, that most decisions following this well-established approach relate to amendments based on lists of non-converging alternatives. By contrast, in cases where the amendments are based on selections from lists of converging alternatives, the conclusions have been less consistent:

- In decisions T 812/09 (Reasons, point 3.1) and T 2273/10 (Reasons, point 2), board 3.3.06 in different compositions followed an analogous approach to T 727/00, concluding that there was no basis in the application as filed for arbitrarily combining most preferred elements with less preferred options taken from lists of converging alternatives in the original description and/or claims.

- In decision T 2237/10 (Reasons, point 4.8), board 3.3.09 considered that amendments based on combinations of most preferred and less preferred options selected from lists of converging alternatives could be allowable under Article 123(2) EPC, provided that the features incorporated into the claim were part of the dependent claims as filed rather than part of the original description. While the board considered that this aspect explained the divergent approach with respect to decision T 812/09, where the basis for the amendments had been taken from the description, no reference was made to decision T 2273/10, in which the lists used as the basis for the amendments were part of the dependent claims as filed.

- In decision T 27/16 (Reasons, points 13.1-13.10), board 3.3.06 in a different composition also came to the conclusion that selections of more and less preferred options from lists of converging alternatives should not be considered as arbitrary selections but

simply as a restriction of the subject-matter to a preferred embodiment (see Reasons, point 13.7). In this decision the board took the (sole) example of the original application as the pointer for the allowable specific combination of features defined in claim 1.

- Finally, as argued by the appellant, the boards have generally regarded amendments based on multiple deletions of elements from one or several lists of (non-converging) alternatives as an allowable restriction of the scope of protection under Article 123(2) EPC, provided that such amendments did not result in singling out particular combinations of specific meaning (see decision T 615/95, Reasons, points 4.3 and 6, cited by the appellant, and G 1/93, Reasons, point 16, on which this decision is based).

1.7 In view of the above considerations, the question arises as to whether the selection of elements from lists of converging alternatives should be treated in the same way as the selection of elements from lists of non-converging alternatives. In addition, it should be determined which conditions must be met for amendments based on multiple such selections to meet the requirements of Article 123(2) EPC.

1.7.1 The board considers that selections from lists of converging alternatives should not be treated in the same way as selections from lists of non-converging alternatives for the following reasons:

1.7.2 On the one hand, when fall-back positions for a feature are described in terms of lists of non-converging alternatives (i.e. mutually exclusive or partially overlapping elements), at least part of the subject-matter of each individual element in the list is unique

and different from those of the other elements. Thus, even though each individual element of the list constitutes a restricted version of the broader (amended) feature, within the context of the list itself each non-converging alternative represents a distinct feature. Therefore, selecting specific elements from such lists leads to a singling out of an invention from among several distinct alternatives, which might provide an unwarranted advantage if there is no way to anticipate which of the different inventions will eventually be protected.

On the other hand, when fall-back positions for a feature are described in terms of a list of converging alternatives, each of the narrower elements is fully encompassed by all the preceding less preferred and broader options. Consequently, unlike in the case of non-converging alternatives, the elements of such a list do not represent distinct features, but more or less restricted versions of one and the same feature. Thus, amending a claim by selecting one element from a list of converging alternatives does not lead to a singling out of an invention from among a plurality of distinct options, but simply to a subject-matter based on a more or less restricted version of said feature.

There is thus an analogy between selecting an element from a list of converging alternatives and deleting options from a list of non-converging alternatives, in the sense that both actions lead to a restriction of the scope of protection and not to a singling out of a specific invention from among different options. The selection of an element from a list of converging alternatives is nevertheless more restrictive than the deletion of options from a list of non-converging alternatives, because in the former case the amendment

is restricted to deletions of the less preferred broader options whereas in the latter case the amendment can involve arbitrary deletions of any one (or more) of the non-converging elements. Thus, provided that certain conditions are met (see next point), regarding multiple selections from lists of converging alternatives as extending the subject-matter of the original application appears to be at odds with the well-established practice (see T 615/95 cited above) of considering multiple deletions from lists of converging alternatives as an allowable limitation of the scope of protection under Article 123(2) EPC.

1.7.3 This does, however, not allow the conclusion that amendments based on multiple selections from lists of converging alternatives necessarily meet the requirements of Article 123(2) EPC, because even when each individual selection used to amend the claim is as such regarded as a convergent restriction of the scope of protection, it needs to be assessed whether the specific combination resulting from the multiple selections is supported by the content of the application as filed. For the board, at least the following two conditions should be met:

i) the combination should not be associated with an undisclosed technical contribution, that is, no unwarranted advantage should be derived from linking the specific combination of more and less preferred alternatives to an inventive selection which is not supported by the application as filed; and

ii) the combination should be supported by a pointer in the application as filed. Such pointers can be provided by the example(s) (as in decisions T 27/16; Reasons, point 13.10 and T 615/95; Reasons, point 6, last

paragraph) or by specific embodiment(s) of the application, as this/these generally represent(s) the most detailed and preferred form(s) of the invention. Thus, if an amended claim falls within this/these example(s) or embodiment(s), this might be seen as an indication that the combination resulting from the multiple selections is not arbitrary but purposeful, in the sense that it converges towards the most preferred form(s) of the invention. This condition is particularly relevant when at least some of the amendments are based on the description as filed because, as respondent 2 argued, amending the claim on the basis of optional features selected from among multiple equally ranked alternatives in the description might lead to an arbitrary combination of features which is not supported by the application as filed.

1.8 In view of the above considerations, the board has concluded that the subject-matter of claim 1 at issue is supported by the content of the application as filed for the following reasons:

1.8.1 In point (a) the restrictions of the concentration range and of the type of chelant respectively to "*0.2% to 3.0%*" and *"glutamic-N, N-diacetic acid"* correspond to the most preferred concentration range on page 3, lines 28-29, and the especially preferred type of chelant on page 4, lines 23-25.

Since both the concentration and the presence of a chelant were defined in claim 1 as filed, the above amendments are based on selections of elements from lists of converging alternatives taken from the description, which, in view of the above considerations, constitute a limitation of the scope of protection and not an arbitrary selection from lists,

since, as explained below, the examples point to this selection.

1.8.2 In point (b) the restrictions of the concentration range and of the type of surfactant respectively to "*15% to 25% by weight of the total composition*" and "*anionic surfactant selected from the group consisting of alkyl sulfates and/or alkyl ethoxy sulfates with a combined ethoxylation degree of less than 5*" correspond to the most preferred concentration range on page 10, lines 22-24, the most preferred types of anionic surfactants described on page 10, lines 18-19, and the broadest range for the degree of ethoxylation on page 10, lines 19-20.

On the one hand, the choice of the anionic type of surfactant represents a selection from a list of non-converging alternative surfactants (i.e. those defined in point (b) of claim 1 as filed). This choice is nonetheless not an arbitrary one, because all the examples of the application as filed include an anionic surfactant, therefore pointing to this specific type of surfactant as a preferred one.

On the other hand, the amendment concerning the chemical composition of the anionic surfactant is based on selections from lists of converging alternatives, which constitute a limitation of the scope of protection and not an arbitrary selection from lists, because as explained below, the examples point to these selections.

Furthermore, amending the anionic surfactant in terms of its chemical composition rather than using other alternative aspects, such as the degree of branching, does not involve an arbitrary selection, because the

degree of branching of a molecule is, in principle, considered to be subsidiary with respect to its chemical composition. This is also implicit in the paragraphs describing the anionic surfactants, which begin by referring to the preferred chemical compositions of the anionic surfactants in terms of lists of converging alternatives (see page 10, lines 15-20), and subsequently indicate that *"The average percentage branching of the sulphate or sulphonate surfactant is preferably ..."* (see page 10, lines 29-30), implying that the optional feature concerning the degree of branching is considered only once the specific chemical composition of the anionic surfactants (i.e. *"sulphate or sulphonate surfactant"*) has been determined.

1.8.3 In point (c) the restrictions of the concentration range and of the type of nonionic surfactant respectively to *"3% to 20% by weight of the total composition"* and *"C8-C22 aliphatic alcohols with 1 to 25 moles of ethylene oxide"* correspond to the most preferred concentration range in claim 4 as filed, and a preferred (not the most preferred) type of nonionic surfactant defined in claim 5 as filed.

These amendments are thus based on the combination of claims 1, 4 and 5 as filed with additional restrictions based on selections from lists of converging alternatives, which constitute a limitation of the scope of protection and not an arbitrary selection from lists, because as explained below, the examples point to these specific selections.

1.8.4 The addition of point (d) to claim 1 finds a basis in claim 9 as filed for both the concentration range and the type of surfactants, with the concentration range

being the most preferred option and the type of surfactant being the least preferred and broadest alternative.

These amendments are thus based on a combination of claims 1 and 9 as filed with additional restrictions based on selections from lists of converging alternatives, which, as explained below, constitute a limitation of the scope of protection and not an arbitrary selection from lists.

1.8.5 The addition of the total surfactant level to claim 1 corresponds to the most preferred option in claim 3 as filed.

These amendments are thus based on a combination of claims 1 and 3 as filed with an additional restriction based on a selection from a list of converging alternatives, which, as explained below, constitutes a limitation of the scope of protection and not an arbitrary selection from lists.

1.8.6 Concerning condition (i) in point 1.7.2 above, the board notes that the technical contribution associated with the combination resulting from the multiple selections from lists of converging alternatives is supported by the content of the application as filed. In particular (see inventive step discussion in point 2. below), the improvement of the shine resulting from adding a chelant to a composition including nonionic surfactants is disclosed in page 1, lines 20-23 of the original application, and the alleged further improvement of this technical effect associated with the restriction of claim 1 to a composition having a certain concentration of GLDA as chelant (see technical report filed by appellant) is implicitly derivable from

the fact that both the use of GLDA as chelant and the concentration ranges defined in claim 1 are explicitly presented as preferred options in the application as filed.

1.8.7 Concerning condition (ii) in point 1.7.2 above, the board considers that the specific combination of features defined in claim 1 is the result of a purposeful (i.e. non-arbitrary) restriction of the scope of protection, because it converges towards the most preferred forms of the invention as provided by examples 1, 5, 6, 7, 9, 10 and 11. These examples fall within the subject-matter of claim 1, therefore providing a pointer to the combination resulting from the multiple selections on which the amendments to claim 1 are based (see points 1.8.1-1.8.5 above). While the other examples fall outside the subject-matter of claim 1, this is explained by the fact that they include options which are explicitly considered to be less preferred than the ones defined in claim 1 (i.e. less preferred chelants (examples 2-4, 13-16 and 18-21), less preferred anionic surfactant concentration (example 8) or no surfactant (d) (examples 12, 13 and 17)).

1.8.8 Intermediate generalisation

The board can also not follow the argument that the amendments involve an intermediate generalisation, because the application as filed clearly refers to the branching degree as an optional feature (i.e. it is defined in dependent claims 6 and 7 of the application as filed). The fact that the surfactants in all the examples have a certain branching degree implies that this is a preferred option, but not that it is an essential feature for carrying out the invention (i.e.

for obtaining the particular technical effect of improving the shine) or that it is inextricably linked to the nonionic or anionic surfactants in the composition. Moreover, the respondents did not provide any technical evidence supporting this allegation, for instance examples showing that the technical effect could not be obtained in the absence of said feature.

1.9 To summarise, in view of the above considerations, the board concludes that the subject-matter of claim 1 at issue is clearly and unambiguously derivable from the application as filed, and so meets the requirements of Article 123(2) EPC, because the amendments to claim 1 are based on a combination of i) a single selection of a preferred element from a list of non-converging alternatives, ii) selections from lists of converging alternatives and iii) claims as originally filed, wherein the resulting combination of features is pointed to by examples of the application as filed and is not associated with an undisclosed technical contribution.

1.10 The subject-matter of dependent claims 2 to 6 and 9 finds a basis in claims 2, 5, 6, 7, 9 and 10 as filed, respectively, and that of dependent claims 7 and 8 is supported by the disclosure in page 13, lines 7 to 13, as filed, and thus also meets the requirements of Article 123(2) EPC.

2. Main request - Inventive step

Using the problem-solution approach, the board has concluded that the main request complies with the requirements of Article 56 EPC.

2.1 Closest prior art

Composition III of example 1 in document D1 represents the closest prior art, because it discloses a hand dishwashing product with several components in common with the underlying invention and with a total to nonionic surfactant ratio of 9.6 (i.e. falling within the range of 2-10 defined in claim 1).

The subject-matter of claim 1 differs from this composition in that it comprises *"0.2% to 3% by weight of the total composition of glutamic-N,N-diacetic acid"* (GLDA).

2.2 Problem solved by the invention

According to paragraph [0004] of the patent in suit, the problem solved by the invention is to provide a hand dishwashing composition with superior cleaning and shine.

2.3 Success of the solution

2.3.1 The technical report filed with the grounds of appeal is concerned with the effects of the chelant and nonionic surfactant on the formation of spots and streaks on glassware. The results are presented in table 2 and expressed in the form of the so-called "clarity index". This parameter represents the degree of clarity of a glass after being cleaned with the composition, wherein a value of 100% represents a perfectly clear glass.

The patent in suit indicates in paragraph [0003] that a *"surfactant can leave visible films and cause streaks and spots on the rinsed dishware surfaces"*, which is

detrimental for the shine. Thus, the "clarity index" appears to be a proxy for the degree of film formation caused by each cleaning composition, wherein higher values are associated with lower film formation and, consequently, to a higher shine.

Compositions B and D in table 2 of the technical report correspond respectively to composition III of example 1 of document D1 (i.e. the closest prior art) and to a composition falling within the scope of claim 1. In view of the results obtained for these compositions it is apparent that the addition of GLDA as the chelating agent has the effect of reducing film formation and therefore of increasing the shine. While an improvement is also observed when EDTA is used as the chelant (composition E), the effect is significantly smaller. Finally, comparing formulation A (including neither nonionic surfactant nor chelant) with formulations B and C indicates that the addition of either surfactant or GLDA alone is detrimental for the shine, which reinforces the idea that the observed effects are caused by the combination of GLDA and nonionic surfactant.

2.3.2 Respondent 2 argued that it was not plausible that the alleged improvement of the shine would be reproducible throughout the entire claimed range. The observed effects were furthermore insignificant, particularly when comparing formulation D according to the invention with formulation A, which included neither a nonionic surfactant nor a chelant. This raised the question of whether it was worth adding two further active substances to obtain such an insignificant improvement, in particular in view of the higher costs and environmental impacts associated with the use of additional ingredients.

It also argued that, since the patent had been revoked, the burden of proof lay with the appellant to show that the alleged effect took place throughout the entire scope of the claims. In this respect, testing a single example (i.e. composition D) should be considered insufficient evidence, particularly in view of the small differences observed and considering that such effects would likely be even smaller when operating at the lower concentration ranges. Moreover, the representativeness of formulation D would be questionable because all the formulations in the technical report included components which were not necessarily part of the composition defined in claim 1, such as suds suppressors or amine oxides (according to point (d) of claim 1 betaines could be used instead of amine oxides).

2.3.3 Concerning the question of the burden of proof, the board considers the technical report submitted with appellant's grounds of appeal as a response to the opposition division’s argument that the addition of GLDA to composition III of example 1 of D1 would not give rise to any unexpected technical effect. Thus, the board considers that with the submission of this technical report the burden of proof was shifted back to the respondents.

Since during written proceedings they did not submit any argument or counter-evidence to contest the results disclosed in the technical report, the burden of proof lies with them to demonstrate that the invention according to claim 1 does not solve the technical problem of improving the shine of the dishware.

The arguments brought forward by respondent 2 during oral proceedings are also not considered to discharge the burden of proof for the following reasons:

First, as correctly pointed out by the appellant, when looking at the technical report, it is not appropriate to compare the results obtained with composition A (including neither a nonionic surfactant nor a chelant) with those of composition D according to the invention for the purpose of improving the shine, because it is known in the art that the use of nonionic surfactants is related to other positive cleaning effects (i.e. different from that of improving the shine). In fact, the patent in suit precisely attempts to prevent the observed detrimental effects of nonionic surfactants on the shine, that is, to provide compositions which include nonionic surfactants while maintaining or improving the shine (see paragraph [0003]).

Second, it is not convincing that the observed improvement of the clarity index with respect to the closest prior art (90,73% for D vs. 87,10% for B) is insignificant, since as indicated by the appellant, only the highest range of "clarity index" corresponds to transparent glass (i.e. the medium and lower ranges of the clarity index correspond to translucid and opaque glasses).

Third, since it is apparent that the core of the invention is associated with the combined effect of GLDA as the chelant and a nonionic surfactant, and since no evidence has been presented by respondent 2 concerning the role of other components (e.g. betaines or suds suppressors), the board considers that composition D is plausibly representative of the subject-matter of claim 1.

Finally, in the absence of counter-evidence to support the argument that the effect observed for composition D would not be reproducible for other compositions falling under the scope of protection, the board, following the standard of the balance of probabilities, concludes that it is technically plausible that the subject-matter of claim 1 successfully solves the problem of improving the shine throughout its entire claimed range.

2.4 Obviousness

2.4.1 Respondent 2 argued that GLDA was a well-known chelating agent and that it was in particular known from documents D4-D6 (brochures from Akzo Nobel) that it offered a number of advantages in terms of biodegradability versus other alternatives such as EDTA. It was thus obvious to consider using this chelant in composition III of example 1 in D1.

2.4.2 While it is not contested that GLDA is a known chelant, the board notes that none of the cited documents discloses that the addition of this particular product would solve the problem of improving the shine of a liquid hand dishwashing detergent composition containing nonionic surfactants.

In particular, document D1 does not even refer to GLDA as an alternative chelating agent, and while documents D4-D6 disclose GLDA and even refer to its advantages in terms of biodegradability, there is no incentive or indication which could (let alone would) lead the skilled person to consider adding this substance to the composition III in D1 for the purpose of improving the shine of the dishware.

2.4.3 The board therefore concludes that the subject-matter of claim 1 is not rendered obvious by the cited prior art.

2.5 The compositions of dependent claims 2-8 and the method of claim 9 refer back to claim 1, and are therefore also considered to comply with the requirements of Article 56 EPC.

3. Since no further objections were raised against the main request, the board concludes that this request complies with the requirements of the EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent in amended form on the basis of the claims of the new main request filed during oral proceedings before the Board, and a description to be adapted where appropriate.

The Registrar: The Chairman:

A. Pinna J.-M. Schwaller

Decision electronically authenticated