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D E C I S I O N
of 26 February 2004

Case Number: T 0929/00 - 3.3.6

Application Number: 94920910.0

Publication Number: 0707632

IPC: C11D 17/06

Language of the proceedings: EN

Title of invention:
Detergent composition or component containing anionic sufactant and process for its preparation

Patentee:
UNILEVER PLC, et al

Opponent:
The Procter & Gamble Company
Henkel KGaA

Headword:
Detergent component/UNILEVER

Relevant legal provisions:
EPC Art. 54

Keyword:
"Novelty (yes) - non suggested combination of several selections from a plurality of lists within the more generic disclosure of a prior art patent document"

Decisions cited:
T 0198/84, T 0279/89, T 0891/97

Catchword:
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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0929/00 - 3.3.6

D E C I S I O N
of the Technical Board of Appeal 3.3.6
of 26 February 2004

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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 21 July 2000 revoking European patent No. 0707632 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Krasa
Members: P. Ammendola
U. J. Tronser

Summary of Facts and Submissions

I. This appeal is from the decision of the Opposition Division revoking European patent No. 0 707 632 concerning a detergent composition and a process for its production.

II. The Respondents I and II (Opponents I and II) filed notices of opposition based on lack of novelty and inventive step (Article 100(a) in combination with Articles 52(1), 54 and 56 EPC) and lack of disclosure (Article 100(b) EPC). Respondent I cited also added subject matter as ground of opposition (Article 100(c) EPC).

The oppositions were based *inter alia* on the following document:

Document (4) = EP-A-0 506 184.

III. The Opposition Division held that originally undisclosed subject-matter was introduced into the patent in suit during the examination of the patent application (Article 100(c) EPC).

It also found that the invention defined in the auxiliary requests filed by the Appellants (Patent Proprietors) during the oppositions proceedings and which overcame the objection as to added subject-matter, although sufficiently disclosed (Article 100(b) EPC), lacked novelty (Article 100(a) in combination with Articles 52(1) and 54 EPC).

IV. The Appellants appealed against this decision.

At the oral proceedings held on 26 February 2004 before the Board, the Appellants filed four amended sets of claims as main request and first to third auxiliary requests.

Only the main request is relevant for this decision. It comprises eleven claims. Claim 1 reads as follows:

"*1. A free-flowing granular detergent component having a bulk density of at least 550 g/liter consisting essentially of:*

(a) from above 40 to 55 wt % of anionic surfactant consisting of that which has an acid precursor which is liquid at ambient temperature, said anionic surfactant being selected from primary alcohol sulphates, alkyl benzene sulphonates and mixtures thereof,

(b) from 30 to 50 wt % (anhydrous basis) of zeolite,

(c) from 2 to 25 wt % of alkali metal carbonate, provided that when the anionic surfactant consists wholly of primary alcohol sulphate the amount of alkali metal carbonate is from 2 to 12 wt%. "

Independent Claim 10 defines the process for the preparation of the granular detergent composition of claim 1, and dependent claims 2 to 9 and 11 define further embodiments of claims 1 and 10, respectively.

V. The Respondents raised no objection to the main request in view of the requirements of Article 123 EPC. They argued that it lacked clarity (Article 84 EPC) and novelty in view of Document (4) (Articles, 52(1), 54 and 100(a) EPC).

VI. In respect of novelty of the main request the Appellants maintained that Document (4) did not disclose explicitly or implicitly detergent compositions falling under the definition of claim 1 of the main request.

They also stressed that the Opposition division did not decide on the inventive step issue and thus requested the remittal to the first instance for the assessment of the allowability of their requests in this respect.

VII. The Respondents contested the clarity (Article 84 EPC) of the main request only in view of the allegedly vague expression "ambient temperature" in claim 1.

In respect of the question of novelty they presented the following arguments.

Even though Document (4) did not disclose explicitly compositions falling under the definition of claim 1 of the Appellants' main request, part of the subject-matter claimed in the Appellants' main request would represent **a selection within the generic definition** of the detergent compositions of Document (4) (compare the above given claim 1 of this request with Document (4), page 3, lines 22 to 33, reading "*Phosphate containing as well as zeolite containing compositions may be prepared. The process is also suitable for preparing*

calcite/carbonate containing detergent components or compositions. The final detergent product may for example comprise 20 to 50 wt% of a builder, 5 to 70 wt% carbonate, 20 to 45 wt% anionic surfactant, 0 to 20 wt% nonionic surfactant and 0 to 5 wt% soap. The liquid acid precursor of an anionic surfactant may be selected from the acid precursors of linear alkyl benzene sulphonate, alpha-olefin sulphonate, internal olefin sulphonate, alkyl ether sulphate or fatty acid ether sulphate and combinations thereof.....An especially preferred class of anionic surfactants are primary or secondary alcohol sulphates.").

The Respondents maintained that such part of the claimed subject-matter would:
a) be very close to the specific detergent composition exemplified in Document (4) (see Tables 4 and 8 of the examples) and
b) represent no purposive selection, since no surprising effect had been demonstrated to be obtainable in the area of overlap.

Therefore, two of the three criteria elaborated by the jurisprudence of the Boards of Appeal for establishing novelty in case of selection of chemical inventions would be absent in the present case.

Finally they stressed that to arrive at compositions falling under the definition of present claim 1, the skilled reader of Document (4) only needed to increase the amount of anionic surfactant in the examples of Document (4), as suggested by the fact that the composition's generic definition at page 3 of this citation (see the portion of Document (4) cited above

in parentheses) disclosed that the amount of anionic surfactant may be as high as 45wt%. In particular, this modification of the examples would be further suggested by the fact that Document (4) defines the object of the invention disclosed therein as that of providing a detergent composition "*in particular having a high level of anionic surfactant*" (see Document (4), page 2, lines 32 to 34).

VIII. The Appellants requested that the decision under appeal be set aside and that the case be remitted to the first instance for further prosecution on the basis of claims 1 to 11 of the main request submitted at the oral proceedings or alternatively on the basis of the claims of the first to third auxiliary requests also submitted at the oral proceedings.

IX. The Respondents requested that the appeal be dismissed.

Reasons for the Decision

1. *Admissibility of the Appellants' main request in view of Articles 84 and 123(2) and (3) EPC*

1.1 The Respondent's only objection in respect of Article 84 EPC was raised in writing with reference to the expression "*ambient temperature*".

However, at the oral proceedings, the Board stressed that this expression is generally accepted in the technical field of detergents as clear and unambiguous for the person skilled in the art.

Since this was finally not disputed by the parties, the Board concludes that claim 1 of the Appellants' main request complies with the requirements of Article 84 EPC.

1.2 The Board is also satisfied that claim 1 of the Appellants' main request complies with the requirements of Article 123(2) and (3) EPC.

In particular, basis for the present wording of claim 1 is to be found in the original patent application in claim 1, page 4, lines 16 to 28, and page 6, lines 20 to 23 and 33 to 35. Its subject-matter is more restricted than that of the granted claim 1, since in the present claim the anionic surfactants in the detergent composition consist of primary alcohol sulphates (hereafter PAS) and/or alkyl benzene sulphonates (hereafter LAS) which have been restricted to those whose **acid precursors are liquid at ambient temperature**. Moreover, the minimum amount of the anionic surfactants has been raised from 30 to **above 40 wt%**.

Since the Respondents raised no objection in this respect, no further reason needs to be given.

1.3 The Board is also satisfied that the remaining claims 2 to 11 of the Appellants' main request comply with the requirements of Articles 84 and 123(2) and (3) EPC, since these claims are substantially identical to the corresponding granted claims, except for the amendments of the minimum amount of the anionic surfactant (a) in claims 3 and 5, so as to be consistent with the minimum

amount of "*above 40 wt%*" defined in claim 1 on which they depend or refer to, respectively.

Since the Respondents raised no objection in this respect, no further reason needs to be given.

2. *Novelty of the subject-matter of claim 1 of the Appellants' main request (Article 100(a) in combination with Articles 52(1) and 54 EPC*)

2.1 Claim 1 defines a free-flowing granular detergent composition characterized in that it must comprise more than 40 wt% and up to 55 wt% of PAS and/or LAS anionic surfactant, whose acid precursor is liquid at room temperature, in combination with 30 to 50 wt% of zeolite. The amount of alkali metal carbonate when the claimed detergent composition comprises only PAS as anionic surfactant is from 2 to 12 wt%, in all other cases ranges from to 2 to 25 wt%.

2.2 The Respondents contested the novelty of the detergent composition of claim 1 in question only in view of Document (4).

They submitted that the subject-matter of the claim in question, even though not anticipated by any prior art composition explicitly disclosed in such citation, **overlaps** with the group of detergent compositions identified by the generic definition at page 3, lines 22 to 33, of Document (4) (cited above at item VII of the Facts and Submissions).

As evident from the arguments summarized above at item VII of the Facts and Submissions, the Respondents also

alleged the absence of two of the three criteria for novelty of so-called "selection inventions", as set out in the decision T 198/84 (OJ EPO 1985, 209, points 5 to 7 of the reasons for the decision) and confirmed in point 4.1 of the decision T 279/89 (not published in the OJ EPO), i.e. that the claimed subject-matter should be far removed from the preferred part of the prior art and not simply represent an arbitrarily chosen way of carrying out the prior art invention.

2.3 The Respondents concluded that, therefore, the subject-matter claimed was not delimited over Document (4) and, thus, anticipated by this citation.

2.4 The Board cannot accept the Respondents' arguments.

While it is true that **concentration ranges** of the component types designated (a), (b) and (c) in the patent in suit seemingly overlap with the respective ranges of the corresponding generic types as disclosed in Document (4) (see item VII, above), this does not directly and unambiguously lead to a range of overlap of the **compositions** concerned. To end up at the alleged overlap in respect of the **compositions** a combination of a plurality of selections within the concentration ranges and within the generic definitions of the **components** disclosed in Document (4) is required.

2.5 For instance, to arrive from the (above-cited) generic definition of the detergent composition at page 3, lines 22 to 33, of Document (4) to detergent compositions belonging to this area of overlapping concentration values it is necessary to **simultaneously** select:

a) **LAS** or **PAS** among the anionic surfactants disclosed therein (i.e. LAS, alpha-olefin sulphonate, internal olefin sulphonate, alkyl ether sulphate, fatty acid ether sulphate, PAS and secondary alcohol sulphates)
b) **zeolite** among the builders disclosed therein (i.e. phosphate, zeolite or calcite), **and**
c) **certain portions** of the amount ranges disclosed for the anionic surfactant **and** the builder **and** the carbonate (compare "...*20 to 50 wt% of a builder, 5 to 70 wt% carbonate, 20 to 45 wt% anionic surfactant,...*" in the above-cited generic definition of the detergent compositions of Document (4) with the amount ranges in claim 1 in question).
This has also not been disputed by the parties.

2.6 The Boards therefore considers that the situation in the present case, wherein an area of overlap with the prior art can only be constructed by a **combination of several selections from a plurality of lists**, is distinguished from a situation wherein the claimed subject-matter represented a **single** selection - of a sub-range - within a prior art, as decided in the above-cited T 198/84 and T 278/89.

The Board finds appropriate to stress that the same conclusion applies to the unpublished decision T 891/97, wherein the definition of a group of compositions was found disclosed in a prior art document, because it resulted from the implementation of a generally applicable instruction contained in this citation to one of the binary mixture explicitly disclosed therein (see items 3.2 and 3.3 of the reasons). Hence, also in this decision, the relevant disclosure resulted from a **single selection** (the selection of one of the

explicitly disclosed binary mixtures to which the generic teaching was applicable) and not from a **combination of several selections from a plurality of lists**.

Therefore, these decisions are of no relevance for the present case.

2.7 According to the established jurisprudence of the Boards of Appeal, only what can be **directly and unambiguously** derived from a prior art document is relevant for the assessment of novelty.

Hence, and since the Respondents have conceded that the alleged anticipation is not explicitly disclosed in Document (4), the Board finds that in the present case the novelty assessment amounts to establishing whether or not this alleged anticipation is **directly and unambiguously implied** from the wording of this citation. In other words, it must be established if **any** person skilled in the art would consider the disclosure of one or more compositions anticipating the subject-matter of the claim in question as **necessarily implied** by the explicit disclosure of Document (4) (e.g. in view of the self-evident correlations existing among distinguished portions of the explicit disclosure in this citation, or of purely logical necessity, or of basic scientific laws, or of other correlations which are generally recognised as inevitably mandatory in the relevant technical field, etc.).

2.8 The Board finds that the specific combination of the selections a) to c) listed above at item 2.5 is not necessarily implied in the generic definition of the

detergent composition of Document (4) cited above in the Facts and Submissions.

In particular, nothing in this generic definition necessarily implies that the upper portion of the amount range of the anionic surfactant (from more than 40 wt% and up to 45 wt%, or at least the end value of 45 wt%) had been implicitly disclosed in particular in respect of detergent compositions comprising PAS or LAS as anionic surfactant and between 30 to 50 wt% (or specifically 50 wt%) of zeolite as builder.

2.9 The Board also finds no other portion of the remaining explicit disclosure in Document (4) which, if considered in connection with the above-identified detergent composition's generic definition, could render this combination of selections necessarily implied therein.

In particular, the examples in this citation cannot possibly represent an evidence that such combination of selections could be implied in the generic definition of the detergent composition of Document (4), already for the reason that none of these examples comprises from more than 40 wt% and up to 45 wt% of anionic surfactant.

2.10 It remains thus only to be investigated if, as also maintained by the Respondents, Document (4) at least implicitly suggests directly and unambiguously modifications of the examples that would fall under the definition of claim 1 in question.

In particular, according to the Respondents' argument, the skilled reader of this citation would reasonably consider to increase the amount of anionic surfactant used in the examples up to the maximum level of 45 wt% so as to arrive at detergent compositions of claim 1 in question, also because Document (4) explicitly discloses at page 2, lines 32 to 34, that the detergent composition of this citation is particularly aiming to allow high level of anionic surfactant.

2.11 This reasoning is based on the assumption that this teaching in Document (4) is to be equated to an instruction to use the amount of 45 wt% (or at least "*above 40 wt%*", as required by claim 1 in question) in **any** example of this citation.

The Board observes instead, that such assumption could, if at all, hold certain plausibility if restricted only to those examples of Document (4) disclosing a content in anionic surfactant very close to the disclosed maximum of 45 wt% (i.e. Examples 6 and 7, comprising respectively 39.2 and 39.5 wt% of LAS). However, both these examples still contain less than 30 wt% of builder, whereby such builder additionally is calcite rather than zeolite (Examples 6 and 7 comprise respectively 27.5 and 28.7 wt% of calcite). The Board finds that, in the absence of any indication in Document (4) to increase the amount of builder and **simultaneously** increase the amount of the anionic surfactant and substitute calcite by zeolite, there is no implicit disclosure of detergent compositions within the range of claim 1 when starting out from Examples 6 or 7.

All the other examples of Document (4) comprise levels of anionic surfactant well below 40 wt% (see in Examples 1 to 5: from 23 to 32 wt%) and, already for this reason, the Board concludes that Document (4) does **not** necessarily imply the suggestion of increasing in these examples the amount of anionic surfactants up to the maximum disclosed amount of 45 wt% or at least above 40 wt%.

2.12 Therefore, the Board concludes that the explicit and implicit disclosure of Document (4) does **not** render directly the unambiguously available to the person skilled in the art detergent composition(s) according to the definition of claim 1 in question.

The subject-matter of claim 1 of the main request is therefore found to comply with the requirements of Articles 52(1) and 54 EPC.

3. *Novelty of the subject-matter of claims 2 to 11 of the Appellants' main request(Article 100(a) in combination with 52(1) and 54 EPC*)

3.1 The same reasoning given above in respect of the subject-matter of claim 1 applies to its preferred embodiments defined in claims 2 to 9 as well.

3.2 The process of claims 10 and 11 is only directed to the production of the detergent composition of claim 1, thus it is not anticipated in Document (4) for the same reasons given above in respect of the subject-matter of claim 1.

4. It follows from the above that the claims according to the main request are not open to the objections on which the Respondents rely. Therefore, there is no need to deal with the claims of the auxiliary requests.

5. In the present case, the Opposition Division has not yet considered the issue of inventive step which is an essential question regarding patentability of the claimed subject-matter. Therefore, the Board considers it as justified to remit the case to the first instance for further prosecution (Article 111(1) EPC) on the basis of the claims of the main request, thereby granting the respective request of the Appellants.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance for further prosecution on the basis of claims 1 to 11 of the main request submitted at the oral proceedings.

The Registrar: The Chairman:

G. Rauh P. Krasa