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Datasheet for the decision of 2 July 2019

Case Number: T 1898/15 - 3.3.06

Application Number: 08869542.4

Publication Number: 2242829

IPC: C11D3/386, C11D3/50, C11D17/00

Language of the proceedings: EN

Title of invention:
Laundry detergent composition comprising a glycosyl hydrolase and a benefit agent containing delivery particle

Patent Proprietor:
The Procter & Gamble Company

Opponent:
Henkel AG & Co. KGaA

Headword:
Glycosyl hydrolase and benefit agent / PROCTER & GAMBLE

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step (yes)

Decisions cited:
T 1329/04, T 0544/12

Catchword:

Europäisches Patentamt
European Patent Office
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Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1898/15 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 2 July 2019

Appellant: (Opponent)	Henkel AG & Co. KGaA Henkelstrasse 67 40589 Düsseldorf (DE)
Representative:	Henkel AG & Co. KGaA CLI Patents Z01 40191 Düsseldorf (DE)
Respondent: (Patent Proprietor)	The Procter & Gamble Company One Procter & Gamble Plaza Cincinnati, OH 45202 (US)
Representative:	Russell, Tim Venner Shipley LLP 200 Aldersgate London EC1A 4HD (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 22 July 2015 rejecting the opposition filed against European patent No. 2242829 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	J.-M. Schwaller
Members:	L. Li Voti
	C. Heath

Summary of Facts and Submissions

I. The present appeal is against the decision of the opposition division rejecting the opposition against European patent n° 2 242 829, claim 1 of which reads:

"*1. A laundry detergent composition comprising:*

(a) a glycosyl hydrolase having enzymatic activity towards both xyloglucan and amorphous cellulose substrates, wherein the glycosyl hydrolase is selected from GH families 5, 12, 44 or 74
(b) a benefit agent containing delivery particle comprising a core material and a wall materials that surrounds the core material, said particle having a Delivery Index of at least about 0.05 said composition being a consumer product; and
(c) detersive surfactant."

II. The following documents cited during the opposition proceedings are of relevance for this decision:

D2: WO 2007/100501 A2

D3: US 6,815,192 B2

D7: Technical Report, filed with patent proprietor's letter of 29 May 2015.

III. With its statement of grounds of appeal the opponent (hereinafter the appellant) raised objections under Articles 123(2), 54 and 56 EPC and filed several new documents.

IV. With its reply the patent proprietor (hereinafter the respondent) filed eleven sets of amended claims as

auxiliary requests 1 to 11 as well as several new documents.

V. Following the board's preliminary opinion that *inter alia* the documents filed for the first time in appeal appeared not to be admissible, the appellant maintained all its objections and filed further documents.

VI. At the oral proceedings, which were held on 2 July 2019, the appellant maintained only its inventive step objection and the discussion focused on D2 as the closest prior art and D3. Other documents were no longer relied upon.

VII. After closure of the debate, the final parties' requests were the following:

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

The respondent requested that the appeal be rejected, in the auxiliary that the decision under appeal be set aside and that the patent be maintained based on any of auxiliary requests 1 - 11 all filed with letter dated 13 June 2016.

Reasons for the Decision

1. Main request (patent as granted)- Inventive step

1.1 Claim 1 concerns a laundry detergent composition comprising (a) a glycosyl hydrolase selected from GH families 5, 12, 44 or 74 having enzymatic activity towards both xyloglucan and amorphous cellulose substrates, (b) a benefit agent particle comprising a core material and a wall material that surrounds the

core material and being a consumer product, said particle having a Delivery Index of at least about 0.05 and (c) a detersive surfactant.

Thus claim 1 concerns a glycosyl hydrolase belonging to specific GH families. As explained in D30 (Henrissat, 1991, filed with appellant's letter of 26 March 2019, but also cited at paragraph [0007] of the patent), this means that the enzyme concerned has specific structural characteristics and amino acid sequences, as well as an activity against xyloglucan and amorphous cellulose not limited to the thresholds specified in paragraphs [0012] and [0016] of the patent, and so this includes all enzymes belonging to the selected GH families which the skilled person would recognise to have a certain activity towards both xyloglucan and amorphous cellulose.

1.2 As explained at paragraph [0002] of the patent, even though benefit agents like perfumes are usually incorporated into laundry detergent compositions, it is difficult to improve their efficiency as such agents may be lost due to their physical or chemical characteristics, or they may be incompatible with other compositional components or with the situs that is treated.

Therefore the purpose of the patent (paragraph [0003]) is to improve the benefit agent delivery efficiency.

1.3 The parties agreed that document D2 (see paragraph [0003]), which has the same purpose as the patent, represents a suitable starting point for the evaluation of inventive step, and the laundry detergent composition according to its claim 1 in combination

with the content of paragraphs [0037] and [0038] is considered to represent the closest prior art.

1.4 As regards the technical problem underlying the invention when starting from D2, the appellant argued that it consisted in the provision of an alternative laundry detergent composition comprising the same type of benefit agent particles, whilst the respondent contended that it consisted in the provision of a laundry detergent composition providing improved benefit agent delivery efficiency.

1.4.1 For the board it is not in dispute that the patent in suit does not contain any comparison with respect to any prior art composition. However, the experimental evidence D7 filed during examination proceedings shows that a detergent formulation according to claim 1 comprising benefit agent (perfume) particles and a glycosyl hydrolase according to claim 1 belonging to GH family 44 gives rise to a substantial improvement in the delivery of the benefit agent (perfume) on the treated fabric in comparison to a detergent formulation not comprising the glycosyl hydrolase enzyme.

1.4.2 In the appellant's view, D7 should be disregarded since the patent in suit did not contain any teaching that the improved benefit agent delivery efficiency is due to the presence of the selected glycosyl hydrolase in the claimed detergent composition.

The board cannot agree with this view since the effect of the selected glycosyl hydrolases is explicitly disclosed in paragraphs [0003] and [0004] of the patent and on page 1, lines 17 to 28 of the original application (in its version WO 2009/087525).

D7 represents thus experimental evidence supporting the teaching of the patent in suit and of the application as originally filed.

Furthermore, as amply illustrated in the established jurisprudence (Case Law, 8th edition 2016, page 182), experimental evidence may be taken into account in order to provide confirmation that the purpose of the invention has been achieved. Therefore, as found in the decision under appeal (point 4.5), the different conclusion in decision T 1329/04 (catchword and point 12 of the reasons), concerning a particular effect not sufficiently illustrated in the application as filed, does not apply to the present case.

1.4.3 The board also cannot agree with the appellant that the effect shown in D7 would be expectable under the conditions chosen for the experiment since the tested benefit agent particles contain carboxymethyl cellulose, i.e. an amorphous cellulose which can be degraded by the enzyme used. In fact, there is no evidence on file that the amorphous cellulose incorporated into the particles would be accessible to such enzyme. i

1.4.4 Neither has the board any reason to assume, in the absence of evidence, that the composition tested in D7 is not one according to claim 1 at issue, for example that the benefit agent (perfume) particles used in the D7 would not have the required delivery index or the structural requirements of claim 1 at issue.

1.4.5 In addition, the board has no reason to assume in the absence of counter-evidence that a similar improvement in benefit agent delivery efficiency would not be obtained by other glycosyl hydrolases falling under the

definition given in claim 1. In particular, even though at least some of the GH families listed in claim 1 may apparently encompass hundreds or even thousands of glycosyl hydrolase enzymes, as submitted by the appellant, the claim is limited to those glycosyl hydrolases that the skilled person would recognise to be active against xyloglucan and amorphous cellulose.

Therefore, claim 1 includes definitely a limited class of enzymes.

1.4.6 The board thus cannot accept appellant's further argument that present claim 1 is comparable to the one in case T 544/12, cited during oral proceedings, in which it was decided (catchword, point 1) that the claim was only an invitation to perform a research program to identify by trial and error suitable compounds defined by the claim. Moreover, the cited decision concerned sufficiency of disclosure, not inventiveness of the claimed subject-matter as in the present case; it is thus not applicable to the present case.

1.4.7 Instead, it is established jurisprudence that in opposition proceedings the burden of proof lies with the opponent (see Case Law page 700-703, points 5.2.1 and 5.2.3). Especially in the present case wherein the opposition was rejected and the experimental report D7 was judged valid by the opposition division, the burden of proof was on the appellant to show the contrary. Therefore, all decisions that it cited in writing or during oral proceedings concerning the reverse of the burden of proof do not apply to the present case.

1.4.8 The fact that some of the enzymes falling under the scope of claim 1 would not lead to any improvement in

benefit agent delivery efficiency hasving not been supported by any evidence, the board has no reason to depart from its provisional opinion that D7 convincingly shows that the technical problem identified over D2 has been solved by means of a composition according to claim 1 at issue.

1.5 It is not in dispute that the subject-matter disclosed in D2 differs from that of claim 1 at issue only in that it does not include a glycosyl hydrolase enzyme of the type defined in said claim.

1.6 It remains thus to be decided whether it was obvious for the skilled person, trying to further improve the benefit agent delivery efficiency of a composition according to D2, to choose one glycosyl hydrolase falling under the scope of claim 1 at issue.

1.6.1 In this respect it is undisputed that the composition of D2 may include enzymes (paragraph [0085]) such as β-glucanases. However, enzymes active against xyloglucan are not specifically mentioned in this document, which also does not contain any suggestion that the incorporation of whatever enzyme might provide an improvement in the delivery of the benefit agent particles.

1.6.2 Glycosyl hydrolases in accordance with claim 1 at issue were known (paragraphs [0010] and [0011] of the patent), for example the preferred enzyme XYG1006 was known from D3 (example 3). It is also known that they were suitable for incorporation in laundry detergent compositions (see e.g. D3, example 4). There is however no hint in D3 that the incorporation of such enzymes could provide any improvement in the delivery of benefit agent particles. As a matter of fact D3 teaches

in particular their use for removing specific soils (column 3, lines 60-67).

Moreover, even though D3 discloses that detergent compositions containing the disclosed enzymes may comprise encapsulated perfumes (column 29, lines 5-6) it does not teach that such perfumes should be encapsulated in particles of the type required in claim 1 at issue.

Therefore, even if the skilled person could have tried to incorporate such enzymes in a laundry detergent composition because of the known benefits associated to the use of cellulases and more particular xyloglucanases and of the benefits mentioned in D3, he would not have done so with the expectation of obtaining the desired improvement.

1.6.3 The other documents filed by the appellant are at first sight no more relevant than D3 and do not contain any hint that the use of a glycosyl hydrolase according to claim 1 might provide the desired improvement.

1.7 The board thus concludes that the subject-matter of claim 1 at issue (and by the same token that of claims 2-15 which depend thereon) involves inventive step within the maening of Article 56 EPC.

2. As the appellant has not succeeded in showing that the set of claims as granted does not meet the requirements of the EPC, its appeal must fail and the decision of the opposition division becomes final.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Pinna J.-M. Schwaller

Decision electronically authenticated