

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 16 April 2019**

Case Number: T 1413/17 - 3.3.07

Application Number: 10805559.1

Publication Number: 2516015

IPC: A61Q11/00, A61K8/22, A61K8/46

Language of the proceedings: EN

Title of invention:
ORAL CARE COMPOSITIONS

Applicant:
Colgate-Palmolive Company

Headword:
Oral care compositions/COLGATE

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - main and auxiliary requests (no)



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 1413/17 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 16 April 2019

Appellant: Colgate-Palmolive Company
(Applicant) 300 Park Avenue
New York, NY 10022 (US)

Representative: Wibbelmann, Jobst
Wuesthoff & Wuesthoff
Patentanwälte PartG mbB
Schweigerstrasse 2
81541 München (DE)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 12 December
2016 refusing European patent application No.
10805559.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman D. Boulois
Members: A. Usuelli
Y. Podbielski

Summary of Facts and Submissions

I. The appeal of the applicant (hereinafter: the appellant) lies from the decision of the examining division to refuse European patent application No. 10 805 559.1. The decision was based on a main and an auxiliary request both relating to an oral care composition comprising a bound peroxide as whitening agent.

Claim 1 of the main request read as follows:

"1. An oral care composition comprising:
a whitening agent, wherein the whitening agent is a bound peroxide;
an anionic surfactant present in an amount from 1.75% to 2.0% w/w; and
an orally acceptable carrier having a water content of from 0% to 4% w/w and wherein the water content of the oral care composition is less than 4% w/w;
wherein the bound peroxide comprises hydrogen peroxide and a polymer;
wherein the orally acceptable carrier is selected from the group consisting of polymers and copolymers of polyethylene glycol, ethylene oxide and propylene oxide; and
wherein the anionic surfactant is selected from the group consisting of sodium lauryl sulfate and sodium lauryl sulfoacetate."

II. The following documents were among those cited in the decision:

D1: US 3,574,824

D3: WO 97/02802

D4: WO 01/54657

The examining division considered that the oral care composition defined in claim 1 of the main request differed from the compositions disclosed in examples 6 and 7 of D1 only in that the whitening agent was a bound peroxide whereas in the examples of D1 sodium perborate was used. The technical problem over D1 was the provision of an alternative oral care composition. Since hydrogen peroxide bound to a polymer was a well known bleaching agent it would have been obvious to the skilled person to use it in the compositions of D1. Hence, claim 1 of the main request did not comply with the requirements of Article 56 EPC.

The subject-matter of auxiliary request 1 was not inventive substantially for the same reasons as those set out for the main request.

III. With the statement setting out the grounds of appeal filed on 21 April 2017, the appellant submitted a main request and three auxiliary requests.

Claims 1 of the main request and of auxiliary request 1 were identical to claim 1 of the main request considered by the examining division (see point I above). Claims 1 of auxiliary requests 2 and 3 differed from claim 1 of the main request in the indication that the composition comprised calcium pyrophosphate in an amount of 5 to 50% by weight.

The following document was annexed to the statement setting out the grounds of appeal:

D8: Experimental report

IV. In a communication pursuant to Article 15(1) RPBA issued on 31 January 2019 the Board substantially agreed with the approach followed by the examining division for the assessment of inventive step and gave its preliminary opinion that none of the requests on file complied with the requirements of Article 56 EPC.

V. Oral proceedings were held on 16 April 2019.

VI. The appellant's arguments on inventive step can be summarised as follows:

Document D1 was the closest prior art. The oral care composition defined in claim 1 of the main request contained a polymer-bound peroxide as whitening agent whereas the compositions disclosed in examples 6 and 7 of D1 contained sodium perborate instead. Moreover, a different type of carrier was present in the compositions of D1. The whitening agents of D1 and of the main request were very different: sodium perborate was stable but it was not generally used in toothpaste and was not compatible with some components of the compositions of D1; the polymer-bound peroxides were less stable because the peroxide was loosely bound to a polymer. The skilled person would have had to overcome certain hurdles in any attempt to prepare oral care products containing a polymer-bound peroxide. The use of a polymer-bound peroxide had the benefit of permitting the adhesion of the peroxide to the teeth which resulted in a more effective delivery of this substance. The presence of sodium lauryl sulfate improved the organoleptic properties of the composition. There was no suggestion in the prior art to replace in the compositions of D1 the sodium perborate with a polymer-bound peroxide. Finally, D1 was published in 1971. The skilled person trying to

develop a new oral care composition had no reason to consider the teaching of such an old document. Thus, the subject-matter of the main request was inventive. The same considerations and conclusions applied to the subject-matter of the auxiliary requests.

- VII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request and amended pages of the description filed with the statement setting out the grounds of appeal on 21 April 2017 or, alternatively, on the basis of one of auxiliary requests 1 to 3 and amended pages of the description filed on the same date.

Reasons for the Decision

Main Request

1. Inventive step
 - 1.1 Closest prior art
 - 1.1.1 The Board agrees with the examining division and the appellant that document D1 is the closest prior art.

As explained in the decision under appeal, the composition of present claim 1 differs from the compositions disclosed in examples 6 and 7 of D1 in that the whitening agent is a hydrogen bound peroxide comprising hydrogen peroxide and a polymer whereas the compositions of examples 6 and 7 contain sodium perborate as whitening agent.

In the appellant's view, the subject-matter of claim 1 differs from the disclosure of D1 also in the definition of the carrier which would not allow the presence of mineral oil, which is included in the compositions of D1.

In this regard it is observed that the presence in the composition of claim 1 of the main request of mineral oil is not excluded in view of the term "comprising". Thus, the definition of the carrier does not represent a distinguishing feature over D1.

1.2 Technical problem

1.2.1 The application does not contain any experimental data based on a comparison between the composition of claim 1 and the compositions of D1. In particular, there are no data concerning the technical effects arising from the use of a different whitening agent. Thus, the appellant's allegation that the polymer-bound peroxide is more effective in delivering the peroxide to the teeth is not corroborated by any evidence.

1.2.2 Example 2 of the description discloses a test concerning the assessment of the effects of sodium lauryl sulfate on the organoleptic properties of the composition of claim 1. A similar experiment is disclosed in D8. In both cases the best results are provided by compositions containing at least 1.75% w/w of sodium lauryl sulfate. However, as explained in the decision under appeal (point 2.1.2 on page 5), the compositions of examples 6 and 7 of D1 contain 2% w/w of sodium lauryl sulfate. Hence, the experiments carried out by the appellant do not demonstrate any improvement over D1.

1.2.3 Therefore, starting from D1 the technical problem is seen in the provision of an alternative oral care composition.

1.3 Obviousness

1.3.1 Products based on bound peroxides are presented in the description as known whitening agents which are available on the market (see paragraphs [0021] and [0022] of the published application). In particular, the description refers to the use of peroxides bound to polyvinyl pyrrolidone which are disclosed in the application US 5,122,370. The skilled person faced with the problem of providing an alternative to the compositions of D1 would therefore consider obvious to replace the whitening agent included in these compositions by any other known whitening agent, including agents based on hydrogen peroxide bound to a polymer. In this regard the Board also observes that there is no indication in the prior art that particular technical difficulties have to be overcome when working with these substances.

1.3.2 The appellant's argument that the skilled person would have little motivation to replace a stable inorganic peroxide-generating agent (i.e. sodium perborate) for a loosely bound system such as the hydrogen peroxide bound to a polymer is not convincing. Indeed, modifying a prior art product in a way which is expected to have a negative impact on the properties of the product is not *per se* a reason for acknowledging the presence of an inventive activity.

As to the observation that sodium perborate would not generally be used in toothpaste and would not be compatible with some of the ingredients included in the

compositions of D1, the Board considers that this fact would possibly motivate the skilled person to look for a different whitening agent. Thus, this argument is also not persuasive.

- 1.3.3 The appellant also underlined the fact that document D1 was published more than 30 years before the priority date of the patent. In its opinion, a skilled person seeking to develop a new oral care product would not realistically consider to modify a composition disclosed in such an old document.

In the Board's view this argument is at variance with the fact that also the appellant has chosen document D1 as the closest prior art.

Moreover, a document's age as such is not a ground for excluding it as closest prior art. In some cases a document may not be a realistic starting point because it either relates to outdated technology, or is associated with such well known disadvantages that the skilled person would not even consider trying to improve on it (Case Law of the Board of Appeal of the EPO, 8th edition 2016, I.D.3.6). However, the Board sees no reason to consider that any of these circumstances occurs in the present case.

- 1.4 Accordingly, claim 1 of the main request does not involve an inventive step.

Auxiliary requests 1 to 3

2. Claim 1 of auxiliary request 1 is identical to claim 1 of the main request. Thus, auxiliary request 1 does not comply with the requirements of Article 56 EPC for the same reasons as that of the main request.

3. Claims 1 of auxiliary requests 2 and 3 are identical. These claims differ from claim 1 of the main request in the indication that the composition comprises calcium pyrophosphate in an amount of 5 to 50% by weight.

3.1 It follows from D3 (page 4, lines 20 to 33) and D4 (page 4, lines 10 to 27) that calcium pyrophosphate is an abrasive agent commonly used in dentifrice compositions. D3 indicates that the abrasive agents are usually present in the oral care compositions in amounts between 5 and 60% by weight.

It follows from the above, that the feature concerning the presence of calcium pyrophosphate in the oral care composition does not provide any inventive contribution to the subject-matter of claims 1 of auxiliary requests 2 and 3. Thus, these requests also do not comply with the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed

The Registrar:

The Chairman:



B. Atienza Vivancos

D. Boulois

Decision electronically authenticated