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**Datasheet for the decision
of 29 October 2015**

Case Number: T 0924/13 - 3.3.07

Application Number: 04713361.6

Publication Number: 1599182

IPC: A61K7/16, A61K7/18, A61K7/22

Language of the proceedings: EN

Title of invention:
ANTI-SENSITIVITY, ANTI-CARIES, ANTI-STAINING, ANTI-PLAQUE,
ULTRA-MILD ORAL HYGIENE AGENT

Applicant:
Solvay USA Inc.

Headword:
ANTI-SENSITIVITY, ANTI-CARIES, ANTI-STAINING, ANTI-PLAQUE,
ULTRA-MILD ORAL HYGIENE AGENT/Solvay USA Inc.

Relevant legal provisions:
RPBA Art. 13
EPC Art. 123(2)

Keyword:
Late filed requests - Admitted into the proceedings
Amendments - All requests (no)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 0924/13 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 29 October 2015

Appellant: Solvay USA Inc.
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Representative: Busher, Samantha Jane
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 27 November
2012 refusing European patent application No.
04713361.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman J. Riolo
Members: D. Boulois
P. Schmitz

Summary of Facts and Submissions

I. The appeal lies from the decision of the Examining Division refusing European patent application No. 04 713 361.6. The decision was based on 4 sets of claims as main request and auxiliary request 1 filed with letter of 05 October 2012 and auxiliary requests 2 and 3 filed during oral proceedings of 6 November 2012.

Claim 1 of the following requests read as follows, the difference with respect to the main request being indicated in **bold** (addition) or ~~**strike-through**~~ (deletion):

Main request

"1. An oral care composition comprising:
a water soluble monoalkyl phosphate ester salt and a dialkyl phosphate ester salt, in a molar monoester salt:diester salt ratio of from 70:30 to 100:00,
an abrasive agent, provided that the abrasive agent is not a calcium based abrasive agent, and
a peroxide tooth whitening agent."

Auxiliary request 1

The subject-matter of claim 1 of auxiliary request 1 was further specified by the following feature: "a water soluble monoalkyl phosphate ester salt **having a linear hydrocarbon group** and a dialkyl phosphate ester salt **having a linear hydrocarbon group**, in a molar monoester salt:diester salt ratio of from 70:30 to 100:00"

Auxiliary request 2

"1. An oral care composition comprising:
a water soluble monoalkyl phosphate ester salt and a
dialkyl phosphate ester salt, in a molar monoester
salt:diester salt ratio of from 70:30 to 100:00,
~~an abrasive agent, provided that the abrasive agent is
not a calcium based abrasive agent, and~~
a peroxide tooth whitening agent."

Auxiliary request 3

In comparison with the subject-matter of claim 1 of
auxiliary request 2, the subject-matter of claim 1 of
auxiliary request 3 was further specified by the
following feature: "a water soluble monoalkyl phosphate
ester salt **having a linear hydrocarbon group** and a
dialkyl phosphate ester salt **having a linear
hydrocarbon group**, in a molar monoester salt:diester
salt ratio of from 70:30 to 100:00"

II. According to the decision under appeal, the subject-
matter of claim 1 of the main request derived from
original claims 1, 7 and from the description on page
14, lines 24 and page 15, lines 9-12. It had to be
considered whether there was a basis in the application
as filed for a combination of the particular phosphate
ester combination with a non-calcium based abrasive and
a peroxide tooth whitening agent.

The text of the description at page 22, line 15 to page
23, line 2 referred to the compatibility of the
phosphate ester of particular alcohols with peroxides
in tooth whitening compositions. This part of the
description did not disclose explicitly a composition
comprising both phosphate esters and a peroxide tooth
whitening agent. It was also possible that two
compositions were used one after the other, one being a

tooth whitening composition as mentioned on page 22, line 18, and one being a composition against hypersensitivity comprising the particular phosphate ester. Thus, since the compatibility issue was relevant with separate compositions used sequentially, the combination in one composition was not clearly and unambiguously disclosed. The examining division considered also that preventing stains was not necessarily the same process as whitening the teeth. Thus the feature "anti-adherence of stain" as disclosed at page 22, line 29 of the original application was not related to tooth whitening and could not serve as basis for said amendments. The inclusion of an abrasive agent to be combined with the peroxide tooth whitening agent could also not be read in the application as filed. The examining division concluded that the main request did not meet the requirements of Article 123(2) EPC.

Auxiliary requests 1-3 did not meet the requirements of Article 123(2) EPC for the same reasons.

- III. The applicant (appellant) filed an appeal against that decision.
- IV. With the statement setting out the grounds of appeal, the appellant filed a main request and seven auxiliary requests.
- V. A communication expressing the board's preliminary opinion of the board was sent to the applicant. The Board's opinion was that the main request did not appear to meet the requirements of Article 123(2) EPC and that the conclusions for the main request apply *mutatis mutandis* to the subject-matter of auxiliary requests 1-7.

VI. Oral proceedings were held on 29 October 2015 during which the applicant submitted a new main and first auxiliary request which replaced all the former requests.

Claim 1 of the requests read as follows:

Main request

"1. An oral care composition comprising:
a water soluble monoalkyl phosphate ester salt having a linear, saturated hydrocarbon group of from 8 to 22 carbon atoms and a dialkyl phosphate ester salt having a linear, saturated hydrocarbon group of from 8 to 22 carbon atoms, in a molar monoester salt:diester salt ratio of from 70:30 to 100:00, and a peroxide tooth whitening agent."

Auxiliary request 1

"1. An oral care composition comprising:
a water soluble monoalkyl phosphate ester salt and a dialkyl phosphate ester salt, in a molar monoester salt:diester salt ratio of from 70:30 to 100:00, and a peroxide tooth whitening agent
wherein the phosphate ester salts are phosphate esters of linear, aliphatic alcohols."

VII. The appellant's arguments can be summarised as follows:

The claimed compositions all comprised a peroxide tooth whitening agent, for which a basis was to be found in the original application on page 22, lines 15 to 23. The phosphate esters described in the cited passage were not distinct from the phosphate esters described in the application. The claimed mono-alkyl and di-alkyl

phosphate esters were specific examples of phosphate esters of simple, linear aliphatic alcohols which contained no active covalently bound hydrogen. This passage should not be read in isolation from the rest of the description. Moreover, said passage disclosed a specific effect, namely the absence of decomposition of a peroxide, which should be seen as a basis for an application as such.

The additional passage on page 23, line 2 was referring to "compositions of the invention" and thus clearly to the claimed water soluble mono-alkyl phosphate ester salt and di-alkyl phosphate ester salt. This was apparent from claim 1 as filed, which referred to the specific phosphate esters as claimed.

VIII. Requests

The Appellant (patent applicant) requests that the decision under appeal be set aside and the case be remitted to the first instance for further prosecution on the basis of the sets of claims filed as main request or the first auxiliary request during the oral proceedings of 29 October 2015.

Reasons for the Decision

1. Admission of the requests into the proceedings

The main request and the first auxiliary request have been filed during oral proceedings, at a very late stage of the proceedings. Their subject-matter is however very close to the subject-matter of auxiliary request 3 filed with the statement of grounds of appeal, and is seen as a response to the Board's

communication and to the arguments exchanged during oral proceedings. The Board exerts therefore its discretionary power to admit these requests into the proceedings (Article 13 RPBA).

2. Main request - Amendments

2.1 The application as originally filed relates to oral care compositions containing a surfactant agent consisting essentially of phosphate esters. According to the application, said phosphate esters are water soluble salts of monoalkyl and dialkyl phosphate esters, wherein the molar ratio of monoesters to diesters is greater than 1, more particularly from 70:30 to 100:00, as claimed in claim 1 of the main request.

2.2 The association of phosphate esters with a peroxide tooth whitening agent is mentioned in the description as originally filed on pages 22 and 23; neither the examples, nor the remaining part of the description or the original claims mention further the presence of tooth peroxide whitening agents.

Said passage on page 22 discloses in its introductory part that "**the phosphate esters of simple, linear aliphatic alcohols contain no "active", covalently bound hydrogens, which would be subject to peroxide oxidation**"; further it discloses that the association with such specific phosphate esters provides the specified property that "*the peroxides used in tooth whitening formulations would not be decomposed by them and the film they form on the tooth would retain a higher concentration of the peroxide (especially, but not limited to, basic oxidants such as urea or carbamide peroxides) in contact with the tooth surface*

*for a longer period of time (hours)" (see page 22, lines 15-26). The following paragraph bridging pages 22 and 23 mentions that "in summary, the advantages of the oral hygiene compositions of the invention include: providing an ablatable coating for anti-adherence of stain and bacteria to teeth; desensitization of teeth having dentinal hypersensitivity; low irritancy and improved tissue compatibility or tolerance; increased deposition of various ingredients, including anti-microbials, flavor oils; **compatibility with peroxide whitening agents...**".*

The passages on page 22 and 23 do not mention the presence of other specific excipients. As already mentioned above, the description does not provide any further passage relating to a composition comprising said phosphate esters and peroxide whitening agents. The peroxide whitening agents are in particular not disclosed in the list of possible constituents of the composition according to the invention at pages 14-17 of the original description and none of the examples comprises such compounds.

- 2.3 Hence, said passages on pages 22 and 23 appear to be general considerations relating to the compatibility or stability of peroxide tooth whitening agents or formulations with specific phosphate esters, and constitute also a distinct subject-matter from the compositions disclosed in the other parts of the description. The disclosure of a composition comprising an association of a phosphate ester and a peroxide appears thus to be speculative on the basis of these two passages, and there is no direct and unambiguous teaching of such composition in the application as filed.

Moreover, said passage on page 22 refers to a particular category of phosphate esters, defined by the fact that they are esters of *"simple linear aliphatic alcohols"* and that they contain *"no active covalently bound hydrogen"*. The last property implies in particular the absence of any reactive hydrogen which could react with the peroxide and decompose it, and excludes products such as phosphate mono or di-esters which still present one or two reactive covalently bound hydrogen. As to the fact that the the aliphatic alcohol needs to be "simple", this term is unclear and may interpreted in different ways relating to a short carbon chain length or the absence of a further chemical function, but remains essential to define the aliphatic alcohols. The technical teaching of the description is therefore not only incorporated incompletely in claim 1 of the main request but is also incompatible with the subject-matter claimed in claim 1 of the main request.

As to the passage on page 23, it makes a reference to the compatibility of compositions of the invention with peroxide tooth whitening agents, indirectly thus to the phosphate esters capable of offering this compatibility property, and so the *"phosphate esters of simple, linear aliphatic alcohols containing no active covalently bound hydrogens"* described before on page 22. Said passage does therefore not add any teaching.

- 2.4 Thus, the subject-matter of claim 1 of the main request is not derivable directly and unambiguously from the application as originally filed and the main request does not meet the requirements of Article 123(2) EPC.

- 3. First auxiliary request 1 - Amendments

The subject-matter of claim 1 of the auxiliary request differs from the subject-matter of claim 1 of the main request by the suppression of the specification of the length of the alkyl carbon chain, namely a "*hydrocarbon group of from 8 to 22 carbon atoms*". The phosphate esters are thus defined in claim 1 of the auxiliary request as "*water soluble monoalkyl phosphate ester salt and a dialkyl phosphate ester salt, in a molar monoester salt:diester salt ratio of from 70:30 to 100:00,...*

wherein the phosphate ester salts are phosphate esters of linear, aliphatic alcohols".

In view of the change and the definition of the phosphate esters, the deficiencies regarding the amendments remain the same as for the main request and the first auxiliary request does not meet the requirements of Article 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



S. Fabiani

J. Riolo

Decision electronically authenticated