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D E C I S I O N
of 17 September 2001

Case Number: T 0323/97 - 3.3.6

Application Number: 91309598.0

Publication Number: 0481793

IPC: C11D 17/00

Language of the proceedings: EN

Title of invention:
Detergent composition in tablet form

Patentee:
UNILEVER PLC. et al

Opponent:
Henkel Kommanditgesellschaft auf Aktien
Joh. A. Benckiser GmbH
The Procter & Gamble Company

Headword:
Disclaimer/UNILEVER

Relevant legal provisions:
EPC Art. 123(2), 56,
EPC R. 57(a)

Keyword:
"Disclaimer (main request) (no) - disclaimer not based upon application as filed is not admissible"
"Request filed for the first time at oral proceedings - not admissible"
"Inventive step (no)"

Decisions cited:
T 0095/83, T 0597/82, T 0608/96, T 0432/92, T 0653/92,

Headnote:

I. An amendment to a patent by the introduction of a "negative" technical feature into a claim resulting in the exclusion of certain embodiments is, regardless of the name "disclaimer", none the less an amendment governed by Articles 123(2) and (3) EPC (point 2.2 of the Reasons for the Decision).

II. Re: Admissibility of disclaimers (points 2.3 to 2.5 of the Reasons for the Decision).

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0323/97 - 3.3.6

D E C I S I O N
of the Technical Board of Appeal 3.3.6
of 17 September 2001

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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 14 January 1997 revoking European patent No.0 481 793 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: P. Krasa
Members: L. Li Voti
C. Rennie-Smith

Summary of Facts and Submissions

I. The present appeal is from the decision of the Opposition Division to revoke the European patent No. 0 481 793 relating to a detergent composition in tablet form.

II. Three notices of opposition were filed against the granted patent, wherein the Respondents 01, 02 and 03 (Opponents 01, 02 and 03) sought revocation of the patent *inter alia* on the grounds of Article 100(a) EPC, in particular because of an alleged lack of an inventive step of the claimed subject-matter.

The oppositions were based *inter alia* upon the following documents:

(1A): GB-A-911204

(8): JP-A-59/145300 (English translation)

(9): JP-A-60/118606 (English translation)

(10): GB-A-2123044

(11): DE-A-3321082

(12): JP-A-60015500 (English translation)

III. In its decision, the Opposition Division found that the claimed invention and the patent in suit, as amended by the Appellants (Patent proprietors) according to any of its requests, did not fulfil the patentability requirements of the EPC.

In particular the claims amended by the introduction of a disclaimer were found to contravene the requirements of Article 123(2) EPC, whilst the subject-matter of the other claims were found to lack an inventive step.

In the latter respect the Opposition Division found that

- starting from the disclosure of Document (12), a skilled person would have obviously coated the percarbonate present in the tablets, as e.g. suggested in documents (10) or (11), in order to improve its stability in the presence of incompatible components such as aluminosilicates;

- taking Document (1A) as an alternative starting point, a skilled person would have automatically arrived at the claimed subject-matter by simply replacing the polyphosphate builder used in this document by a zeolite, which was generally acknowledged at the priority date of the patent in suit as being an ecologically more acceptable builder than polyphosphate.

IV. The Appellant filed an appeal against this decision.

Subsequent to the written arguments filed by the Respondents and a communication by the Board, it filed an amended main request and auxiliary requests 1 to 9 with a letter of 16 August 2001.

Claim 1 of the main request reads as follows:

"1. A tablet of compressed particulate detergent composition comprising a detergent-active compound, a

detergency builder, a bleach system comprising sodium percarbonate, and optionally other detergent ingredients, characterised in that the percarbonate is separated from any ingredient of the composition detrimental to its stability by segregation in a discrete region of the tablet, and in that the detergency builder comprises alkali metal aluminosilicate which is excluded from the discrete region and which contains water;

with the exception of a tablet in which the percarbonate is present as particles enclosed within a coating which is 0.1 to 30% by weight of the weight of sodium percarbonate and is boric acid or contains from 10 to 100% by weight of borate."

Claim 1 of the first auxiliary request reads as follows:

"1. A tablet of compressed particulate detergent composition comprising a detergent-active compound, a detergency builder, a bleach system comprising sodium percarbonate, and optionally other detergent ingredients, characterised in that the percarbonate is separated from any ingredient of the composition detrimental to its stability by segregation in a discrete region of the tablet, and in that the detergency builder comprises alkali metal aluminosilicate which is excluded from the discrete region and which contains water, and in that a bleach activator is present and is also excluded from the discrete region."

Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request insofar as the

detergent active compound is specified to be present in an amount of 5 to 40% by weight, the detergency builder is specified to comprise a supplementary builder selected form polyacrylates, acrylic/maleic copolymers, acrylic phosphinates or monomeric polycarboxylates and the sodium percarbonate is specified to be present in an amount of 5 to 40% by weight.

Claim 1 according to the third auxiliary request reads:

"1. A tablet of compressed particulate detergent composition comprising a detergent-active compound, a detergency builder, a bleach system comprising sodium percarbonate, and optionally other detergent ingredients, characterised in that the percarbonate is separated from any ingredient of the composition detrimental to its stability by segregation in a discrete region of the tablet which region is in the form of a layer, a core or an insert, and in that the detergency builder comprises alkali metal aluminosilicate which is excluded from the discrete region and which contains water."

Claim 1 of the fourth auxiliary request differs from that of the third auxiliary request insofar as it specifies that a bleach activator is present and excluded from the discrete region.

Claim 1 of each of the fifth to ninth auxiliary requests corresponds to the respective claim 1 of each of the previous five requests modified by the specification of the general formula of the alkali metal aluminosilicate as reported on page 4, line 45 of the patent specification.

All requests further contain dependent claims relating to specific embodiments of the tablets as claimed in the respective claims 1.

V. The Appellants' arguments, submitted in writing and at the oral proceedings held before the Board on 17 September 2001, can be summarized as follows:

- the disclaimer contained in claim 1 of the main and of the fifth auxiliary requests was allowable since it restricted the scope of the claims with respect to the teaching of documents (9), (10) and (11) by excluding something originally encompassed by the broader scope of the claims, i.e. one of the suitable coating materials for the percarbonate; moreover, the purpose of this limitation was not that of rendering non-obvious the remaining claimed subject-matter, since the technical teaching of documents (9), (10) and (11) already led away from the use of a percarbonate coating different from that used in such documents;

- Document (12) could not be considered as a suitable starting point for the assessment of inventive step since it dealt only with the problem of solubility of detergent tablets and not with their stability. According to this document a better solubility at low temperatures was achieved by the combination of a metal hydrogen sulfite or phosphite and of an alkaline material such as a percarbonate. Therefore, the segregation of the percarbonate from the rest of the tablets would have been detrimental to its solubility and would not have been envisaged by a skilled person

following the technical teaching of this document;

- Document (1A) dealt with the problem of stability of a tablet comprising a bleaching system containing a peroxyhydrate, e.g. percarbonate, and components incompatible with it; however, it did not teach or suggest the use of a combination of a percarbonate and of an aluminosilicate; moreover, a skilled person, being aware of the mutual incompatibility of these compounds and the difficulties arising from their simultaneous use in granular products as disclosed in documents (8) to (11), would not have envisaged using them together in a compacted tablet and, in any case, would not have expected the resulting tablet to be stable;

- by contrast, the patent in suit provided a tablet which was stable and more soluble than a similar tablet prepared by compacting a homogeneous mixture of all components;

- therefore a skilled person could have arrived at the claimed subject-matter only by the use of hindsight.

VI. The Respondents argued in writing and at the oral proceedings that:

- the disclaimer contained in the wording of claim 1 of the main request and of the fifth auxiliary request was not supported by the original application documents. Moreover, documents (9), (10) and (11) were no accidental anticipations of the claimed subject-matter but had only been cited

with respect to the issue of inventive step.

Consequently the introduction of a disclaimer into claim 1 contravened the requirements of Article 123(2) EPC; moreover the claimed subject-matter according to all requests lacked an inventive step.

With regard to the inventive step issue the Respondents submitted that

- Document (1A) already offered a solution to the technical problem dealt with in the patent in suit by separating the bleaching component from the components detrimental to its stability and confining it to a discrete region of the tablet, e.g. a layer, a core or an insert. Further, at the priority date of the patent in suit it would have been obvious for a skilled person to use a combination of percarbonate and aluminosilicate in the same tablet since these components were known to be either less detrimental to the environment or more efficient at low temperatures (see e.g. Document (11)); moreover, the skilled person, knowing the components' mutual incompatibility, would have incorporated the percarbonate in a discrete region of the tablet as taught in Document (1A), separating it physically from the zeolite;

- similarly, starting from Example 3 of Document (1A), it would have been obvious for the skilled person to modify its teaching by applying modern technology, in particular by replacing the perborate and the phosphate used in the tablet

disclosed in this example by percarbonate and zeolite respectively;

- starting alternatively from Document (12), it would have been obvious for the skilled person to try to render the tablets disclosed therein more stable by coating the percarbonate in a known way, e.g. as disclosed in Document (11);

- the Appellants had not shown any technical advantage for the claimed subject-matter which was not to be expected in the light of the prior art.

VII. At the oral proceedings, the Appellants requested to modify the main request and the fifth auxiliary request by deleting the disclaimer contained in claim 1 of such requests. This was refused by the Board.

The Appellants then requested that the decision be set aside and the patent be maintained on the basis of the main request or one of the auxiliary requests 1 to 9, all filed with its letter of 16 August 2001, or of auxiliary request 10, filed at the oral proceedings before the Board.

Claim 1 of the tenth auxiliary request differs from that of the third auxiliary request insofar as the discrete region of the tablet comprising the percarbonate is limited to a layer.

The Respondents requested that the appeal be dismissed.

VIII. At the end of the oral proceedings, the chairman announced the decision of the Board.

Reasons for the Decision

1. *Procedural issues*

1.1 At the opening of the oral proceedings before the Board the Appellants sought to further modify its requests and in particular to delete the disclaimer in claim 1 of both the main request and the fifth auxiliary request, thus returning to requests previously filed and then abandoned.

In the Board's view, to return at such a late stage to claims previously advanced and then withdrawn amounted to an abuse of procedure since it took the Respondents, who had prepared their case on the basis of the requests as last amended and filed with a letter dated 16 August 2001, i.e. one month before oral proceedings, by surprise.

Moreover, since requests not containing such a disclaimer were already on file, there was no apparent justification for the requested modification.

Therefore, the Board holds the requested modification not admissible (see also T 0095/83, OJ EPO 1985, 75, point 8 of the reasons).

1.2 As to the admissibility of auxiliary requests 5 to 10, see points 5 and 6 below.

2. *Disclaimer (main request)*

2.1 Claim 1, according to the main request, contains a disclaimer, i.e. a technical feature the purpose of which is to exclude protection for part of the claimed

subject-matter.

This feature reads: "with the exception of a tablet in which the percarbonate is present as particles enclosed within a coating which is 0.1 to 30% by weight of the weight of sodium percarbonate and is boric acid or contains from 10 to 100% by weight of borate."

This "negative feature" has, as conceded by the Appellants, no basis in the application as filed and restricts the scope of the claims as granted by excluding embodiments wherein the percarbonate is coated in the same way as in documents (9), (10) and (11). It is to be noted that no attack of lack of novelty against the subject-matter of the patent in suit was based or could be based on these citations since their respective disclosures differ from that of the patent in suit even without the incorporation of a disclaimer into the latter.

The Appellants argued that the disclaimer, even though not based on the original disclosure of the application as filed or on a novelty-destroying disclosure, should be allowed since the patent in suit generally taught use of a coating agent for the percarbonate - thus page 3, lines 18-19 of the patent in suit reads:

"...suitable coating materials...will readily suggest themselves to the skilled detergent formulator."

Moreover, the Appellants claimed this limitation did not have the effect of rendering the remaining claimed subject-matter non-obvious, since according to documents (9), (10) and (11) boric acid or borates were the only and mandatory coating materials to be used for

percarbonate protection. Therefore these citations in any case taught away from the use of any other coating substance.

The Appellants also argued that the admissibility of such an amendment would be supported by certain case law of the Boards of Appeal of the EPO.

2.2 In the past the Boards of Appeal have permitted the introduction of disclaimers, which do not have any support in the application as filed, into a claim in exceptional situations in order to make a claimed subject-matter novel by delimiting it against an accidental anticipation (e.g. T 0434/92, point 2 of the Reasons; T 0653/92, points 2.1 and 2.2 of the Reasons; T 0710/92, point 5 of the Reasons; T 0426/94, point 3 of the Reasons; T 0982/94, point 2.1 of the Reasons and T 0318/98, point 2.2 of the Reasons; none of these decisions published in the OJ EPO). In strict contrast to such limited use of disclaimers, the addition of a disclaimer to make novel subject-matter inventive as well has been held inadmissible (see e.g. T 0597/92, OJ EPO 1996, 135, point 3 of the Reasons and the decisions cited therein).

In this context, an anticipation would be regarded as accidental if a skilled person would not take account of it when evaluating the inventive merit of the patent (or patent application), since it either belongs to a completely different technical field or in view of its subject-matter would not help in solving the technical problem underlying the claimed invention (see also T 0608/96, point 6 of the Reasons, not published in the OJ EPO).

The Board is, however, firmly of the view that an amendment to a patent by the introduction of a "negative" technical feature into a claim resulting in the exclusion of certain embodiments (i.e. by the incorporation into the claim of a so-called disclaimer) is, regardless of the name "disclaimer", none the less an amendment governed by Articles 123(2) and (3) EPC. This means - as far as the requirements of Article 123(2) EPC are concerned - that the amended claim must find support in the application as filed, a requirement which is mandatory for the allowability of the amended patent or patent application as explained in G 0003/89 (OJ EPO 1993, 117, point 1.3 of the Reasons).

2.3 In its opinion G 0002/98 (OJ EPO 2001, 413), the Enlarged Board of Appeal stated that the assessment of whether or not certain technical features of an invention are related to its function and effect may vary in the course of the proceedings, in particular if additional prior art falls to be considered. By reference to the referral of the President of the EPO at point III (v), the Enlarged Board of Appeal also confirmed that the technical problem solved by an invention could not be determined once and for all at a single point in time but might have to be considerably redefined in the course of the proceedings, or even later, in the light of new prior art.

The Enlarged Board concluded, therefore, that the validity of a hitherto acknowledged right of priority could be put in jeopardy, which could be at variance with the requirement of legal certainty (point 8.3 of the Reasons for the Opinion).

Taking into account the principles of legal certainty and consistency in the assessment of priority right, novelty and inventive step - principles the Enlarged Board of Appeal in G 0002/98 explicitly intended to safeguard (see point 9 of the Reasons for the Opinion)- this Board concludes that the considerations set out in G 0002/98 are also applicable to the introduction of a disclaimer, not having a basis in the application as filed, to establish novelty over an allegedly "accidental" anticipatory document.

In fact it would not be possible in this case to assess with certainty whether or not the limitation achieved by the amendment, i.e. the added negative feature, involves a technical contribution to the claimed invention and whether or not the anticipatory disclosure is really accidental. For example, it is always possible that, when a particular embodiment (e.g. a chemical compound) is disclaimed from the generic teaching of a patent application (e.g. a generic formula) because it was accidentally disclosed in a technical field completely outside that of the application, a further citation may later be found disclosing properties of the disclaimed embodiment within or relevant to the technical field of the application.

This could necessitate a redefinition of the technical problem underlying the technical teaching originally considered with all the negative consequences pointed out in G 0002/98 loc. cit.

2.4 Having considered both the earlier decisions mentioned in point 2.2 above in which the practice occurred of admitting disclaimers having no basis in the

application as filed and those decisions approving this practice but holding inadmissible the particular disclaimers sought (e.g. T 0898/91, point 1 of the Reasons; T 0526/92, point 5.1 of the Reasons; T 0645/95, point 2 of the Reasons; T 0608/96, point 6 of the Reasons; T 0863/96, point 3.2 of the Reasons - none of these decisions published in the OJ EPO; and T 0597/92, OJ EPO 1996, 135, point 3 of the Reasons), this Board can find no argument which would justify the maintenance of this practice in the light of the Enlarged Board of Appeal's opinion G 0002/98.

2.4.1 The decisions discussing the admissibility of a disclaimer draw support either from the case law of the Boards generally or in particular from T 0433/86 (not published in the OJ EPO), the decision with which the practice seems to have begun, or from T 0170/87 (EPO OJ 1989, 441).

The decision T 0433/86 states in point 2 of the Reasons:

> "In the Board's view, where there is an overlap between the prior art and the claimed subject-matter defined in generic terms, a specific prior art may be excluded even in the absence of support for the excluded matter in the original documents. Such an exclusion may be achieved by way of a disclaimer, or preferably in positive terms if this leads to clearer and more concise language (cf. Decision T 0004/80, "Polyetherpolyols/Bayer", OJ EPO 4/1982, 149). In the present case, the language of claim 1 as amended is in accordance with the latter possibility. As will be shown hereinbelow, restriction of the molecular weight

> range of the polyether component from "600 to 10 000" (as claimed originally and in the patent as granted) to "above 1500 to 10 000" (as now claimed) was necessary in order to distinguish the claimed subject-matter from (1), where a molecular weight range of between 240 and 1500 has been disclosed."

No arguments can be found in decision T 0433/86 as to why that amendment complied with the requirements of Article 123(2) EPC. Moreover, the reference to decision T 0004/80 appears to concern solely the "formal" admissibility of a disclaimer used to exclude from a patent claim subject-matter originally disclosed as a particular embodiment of the invention. T 0004/80 confirmed that an embodiment of an invention specifically disclosed in an application as filed can be deleted from a claim by means of a disclaimer, if "... the subject-matter remaining in the claim cannot be defined more clearly and concisely directly, i.e. by positive technical features (Article 84 EPC)" (points 2 and 3 of the Reasons for the Decision). This, together with the fact that Article 123(2) is not mentioned, shows that the admissibility of disclaimers is dealt with in decision T 0004/80 only with respect to the issue of clarity.

2.4.2 The often cited decision T 0170/87 also dealt *inter alia* with the admissibility of a disclaimer.

In this case the introduction of a disclaimer was not admitted, since it was intended to render an obvious teaching inventive. However, an *obiter dictum* supplied arguments in favour of a disclaimer to render an already inventive teaching novel. According to this

decision, a disclaimer would be an acceptable limitation since the **inventive** teaching originally disclosed in the application would not be changed by "excising" in the form of a partial waiver (Teilverzicht) only that part of the teaching which the Applicant cannot claim because it lacks novelty. It was also said that there was a considerable practical need for the use of such disclaimers, which can only mean a need of an applicant or patentee.

However, dealing with the **inventive** teaching originally disclosed presupposes, in the judgement of this Board, a definition of the technical problem underlying the invention concerned. It follows that, in deciding the admissibility of a disclaimer under the said practice, the definition of the technical problem underlying the invention in question is a prerequisite of paramount importance since the relevance of a particular disclosure of a citation has to be judged in relation to that technical problem.

The argument suggested in T 0170/87 is therefore flawed by its precondition, namely the assumption that the finding of inventiveness will remain unchanged thereafter. However, and on the contrary (as explained in paragraph 2.3 above), at a later stage and in different circumstances the technical teaching originally disclosed might well be considered obvious with the effect that the disclaimer becomes inadmissible. The subsidiary suggestion in T 0170/87 that there is a practical need for such disclaimers is even less convincing after G 0002/98: applicants and patentees may often consider they have a need either to claim a particular priority or to amend by a particular disclaimer but, in both cases, the allowability of the

priority or disclaimer is necessarily governed by the provision of the EPC. This principle has, as regards priority, been confirmed by G 0002/98.

2.4.3 Therefore, the Board concludes that neither T 0433/86 (alone or in combination with T 0004/80), nor T 0170/87, nor the other decisions mentioned above concerning disclaimers contain any sufficient reason not to apply the Enlarged Board of Appeal's approach in G 0002/98 to the present case.

2.5 The Board has also considered whether the incorporation of the disclaimer, which cannot find support in the original application, could be allowed under Article 123(2) EPC in the light of G 0001/93 (OJ EPO 1994, 541). This decision is concerned with the possible conflict between the provisions of Articles 123(2) and (3) EPC, arising from the introduction of an inadmissible amendment during examination proceedings. It is explained therein that such an addition could be accepted if it merely amounts to an exclusion of protection for part of the invention as covered by the application as filed and does not provide a technical contribution to the claimed subject-matter (point 16 of the Reasons for the Decision). However, the Board finds that the restriction of a feature (here: of the list of possible components of a composition of matter), which has to be considered when it comes to the evaluation of inventive step, cannot be seen as a mere waiver of protection. On the contrary, when the disclaimer (as in the present case) aims at distancing the patent further from the state of the art (here: as disclosed in documents (9), (10) or (11)) which has to be considered when assessing inventive step, its admissibility would give the patent

proprietor an unwarranted advantage (see also T 0526/92, not published in the OJ EPO, point 6.3 of the Reasons for the Decision). This aspect assumes even more importance when the possibility, pointed out in G 0002/98, of a modification of the technical problem underlying the alleged invention is born in mind.

It is therefore the Board's view that any amendment of a claim not having support in the application as filed and aiming at distancing the claimed subject-matter further from the state of the art, in particular by way of a disclaimer, contravenes Article 123(2) EPC and is consequently inadmissible.

2.6 It must, finally, be mentioned that documents (9), (10) and (11), which form the basis for the disclaimer, are not accidental anticipations (as indeed conceded by the Appellant) and have been cited in support of the argument that the claimed subject-matter does not involve an inventive step. Thus even the exceptional situation, considered in the previous jurisprudence of the Boards of Appeal as the pre-condition for the admissibility of an unsupported disclaimer, is not present here and the disputed disclaimer would not therefore even be admissible according to that practice.

It follows that claim 1 of the main request does not comply with the requirements of Article 123(2) EPC and that this request must therefore be dismissed.

3. *Inventive step (first auxiliary request)*

3.1 The Board is satisfied that the claims according to the first, second, third and fourth auxiliary requests

comply with the requirements of Articles 123(2) and (3) and of Article 84 EPC.

The patent in suit complies moreover with the requirements of Article 83 EPC.

None of these issues were raised by the Respondents at the oral proceedings.

Therefore, only the inventiveness of the subject-matter of the claims of these requests has to be discussed below.

3.2 Closest prior art

The patent in suit, and in particular the subject-matter of claim 1 of the first auxiliary request, relates to a tablet of compressed particulate detergent composition comprising an aluminosilicate and a percarbonate which is separated from any ingredient detrimental to its stability by segregation in a discrete region of the tablet, wherein a bleach activator is also present outside of such discrete region comprising the percarbonate (see page 2, line 51 to page 3, line 6; page 4, lines 38 to 41 and page 5, lines 17 to 19).

As explained in the patent in suit percarbonate was known at its priority date to be particularly sensitive to moisture and thus to other components of a detergent composition comprising moisture; especially the presence of zeolites, which comprise large amounts of mobile water, was regarded as critical to the stability of percarbonate (page 2, lines 28 to 36).

The alleged problem of the patent in suit as set out in the description was therefore to provide a tablet comprising both aluminosilicate and percarbonate and being nevertheless stable and more soluble in the wash liquor than a similar tablet wherein the percarbonate was not segregated and was mixed homogenously with the other components before compaction (page 2, lines 45 to 47 and page 3, lines 2 to 6).

Similar tablets containing a bleaching system comprising a peroxyhydrate bleach which can be a percarbonate and a bleach activator therefor as well as components detrimental to the stability of the bleach, wherein the bleaching system or a component thereof is separated from any component detrimental to its stability by segregation in a layer, core or insert were already known from document (1A) (page 2, lines 99 to 116; page 3, lines 22 to 30 and 77 to 99; page 1, lines 24 to 41). These tablets were moreover easily soluble under washing conditions (page 4, lines 21 to 23).

Example 3 of this document discloses e.g. a tablet wherein a pellet of a bleach activator and a pellet of perborate are embedded in the opposite face of a tablet made of a detergent composition.

The Board therefore accepts, as suggested by the Respondents, this citation as the starting point for evaluating inventive step.

Document (12), also used by the Respondents as an alternative starting point, relates to the improvement of the solubility at low temperatures of high bulk density compositions which may comprise

aluminosilicate. These compositions are preferably in the form of a tablet and require the presence of a metal hydrogen sulphite or phosphite and an alkaline agent for achieving the improved solubility. The alkaline agent can be either a percarbonate or any other alkaline salt such as a carbonate (see page 2, lines 24 to 26; page 3, line 21 to page 4, line 8; page 4, lines 19 to 26; examples); moreover, the efficiency of the percarbonate as disintegrating agent appears to be comparable to that of other agents such as carbonate (see Tables 1 and 2).

The silence of Document (12) as to the use of percarbonate as a bleach and as to any possible measure to prevent its destabilization demonstrates that the goal of this invention was merely improved solubility of high bulk density compositions and not the stability in storage of a tablet comprising a percarbonate bleach. Moreover, since this document relies upon the combined action of a metal hydrogen sulphite or phosphite and an alkaline agent such as percarbonate, the segregation of the percarbonate from any component detrimental to its stability, and thus also from a metal hydrogen sulphite or phosphite, would probably prevent the realisation of the described invention and thus be contrary to its teaching.

Therefore, since this document does not deal with the problem of providing a stable tablet comprising percarbonate and components detrimental to its stability, it is more remote from the claimed invention than Document (1A) and cannot represent a suitable starting point for the assessment of the inventive step.

Since the other cited Documents either do not relate to tablets or do not relate to tablets having a bleach such as percarbonate segregated from the rest of the tablet, they are also more remote than Document (1A) and cannot qualify either as a suitable starting point.

3.3 Technical problem

The technical problem dealt with in the patent in suit, as described in the specification of the patent, is allegedly that of providing a tablet comprising both an aluminosilicate and a percarbonate and being nevertheless stable and more soluble in the wash liquor than a similar tablet wherein the percarbonate is not segregated and is mixed homogenously with the other components before compaction.

However, the last part of that alleged problem is defined with respect to a tablet without any physical separation between the bleach and the components detrimental to its stability, i.e. a more remote state of the art than Document (1A), considered the suitable starting point for the assessment of inventive step (see paragraph 3.2 above).

Therefore, this part of the technical problem as described in the patent in suit has to be disregarded when defining the technical problem to be overcome as against Document (1A).

In the light of these considerations the technical problem solved by the patent in suit has to be reformulated in less ambitious terms as the provision of a further stable and soluble tablet comprising percarbonate and aluminosilicate.

The Board has no reason to doubt that a tablet as specified in claim 1 solved this existing technical problem.

3.4 Evaluation of inventive step

As already mentioned (see paragraph 3.2 above), the tablets known from Document (1A) envisage the use of percarbonates as well as of bleach activators and differ from the claimed subject-matter only insofar as they do not comprise an aluminosilicate and thus the combination of percarbonate and aluminosilicate.

For example, Example 3 of this document disclosed a tablet wherein a pellet of a bleach activator and a pellet of perborate are embedded in the opposite face of a tablet made of a detergent composition comprising a phosphate builder.

Aluminosilicates were, however, very well known builders at the priority date of the patent in suit and were the first choice replacement for phosphates because of their lesser ecological impact (see Document (11), page 5, lines 20 to 26). Therefore, it was obvious for a skilled person at the priority date of the patent in suit to try to incorporate them instead of a phosphate builder into the tablets of Document (1A) and to use them also in combination with percarbonate, one of the bleaching components suggested in that document.

Moreover, it was known in the prior art that aluminosilicates and percarbonates were incompatible with each other and that therefore they had to be kept segregated from each other to maintain a reasonable

stability; Document (11), for example, clearly indicated methods by which stability could be maintained in granulates comprising zeolites and percarbonate (see page 5, lines 28 to 33; page 6, line 31 to page 7, line 3; page 12, lines 12 to 37).

Since Document (1A) already taught physical separation of the bleaching components from the components detrimental to their stability by segregating them in a layer, a core or a insert and optionally by coating (see page 2, lines 68 to page 3, line 14), it was obvious to a skilled person to apply this technique to the separation of percarbonate from aluminosilicate, which was known to affect the stability of percarbonate, and to expect from such separation a stable and soluble tablet.

Moreover, the tests present in the patent in suit and those submitted at first instance which compare a tablet as claimed with tablets wherein no segregation exists between the percarbonate and the aluminosilicate, and thus with a state of the art more remote than Document (1A), were not able to show any unexpected advantage as against the teaching of the prior art.

Consequently, it is the Board's conclusion that the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step.

4. *Inventive step (second to fourth auxiliary requests)*

4.1 Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request insofar as the detergent-active compound is specified to be present in

an amount of 5 to 40% by weight, the detergency builder is specified to comprise a supplementary builder selected form polyacrylates, acrylic/maleic copolymers, acrylic phosphinates or monomeric polycarboxylates and the sodium percarbonate is specified to be present in an amount of 5 to 40% by weight.

Claim 1 of the third auxiliary request differs from claim 1 of the first auxiliary request insofar as the percarbonate has to be present in a layer, core or insert and the bleach activator is not essential.

By comparison with the third auxiliary request, claim 1 of the fourth auxiliary request differs from claim 1 of the first auxiliary request only insofar as the percarbonate has to be present in a layer, core or insert.

4.2 Document (1A), as submitted hereinabove, already disclosed the use of a layer, core or insert for separating the bleaching component from the components detrimental to their stability or suggested the use of concentrations for the bleach and the detergent surfactant matching those of the second auxiliary request (the tablet of Example 3 comprising about 10% perborate and 10% detergent surfactant).

Moreover, the additional builders required by auxiliary request 2 were well known to the skilled person and already suggested for use in detergent compositions and also possibly in combination with zeolites (see Document (11) page 21, line 20 to page 23, line 15).

Furthermore, none of these additional features

contribute in any way to greater stability or solubility of the tablets and are thus unrelated to the technical problem solved by the present invention. Therefore, they cannot serve to provide an inventive step.

Therefore, these requests must also be dismissed for lack of inventive step of the claimed subject-matter for the same reasons put forward hereinabove under point 3.4.

5. *Fifth to ninth auxiliary requests*

The fifth to ninth auxiliary requests correspond to the previous five requests but modified by the specification of the general formula of the alkali metal aluminosilicate as given on page 4, line 45 of the patent specification.

As admitted by the Appellants in writing and at the oral proceedings before the Board, these amended claims had been introduced in reply to an Article 83 EPC objection raised by Respondent 02 at first instance and were not intended to deal with any inventive step objection. In this respect the Appellants admitted that the introduction of the above mentioned formula is meaningless in the assessment of inventive step.

However, none of the parties have maintained an Article 83 EPC objection against the claimed subject-matter and the Board is also satisfied that the claimed invention complies with this requirement.

Therefore, since these amended claims do not respond to any outstanding objection of the Respondents they are

not admissible under Rule 57(a) EPC.

6. *Tenth auxiliary request*

The tenth auxiliary request differs from the third auxiliary request insofar as the discrete region of the tablet comprising the percarbonate can only be in the form of a layer.

As also admitted by the Appellants at the oral proceedings before the Board, this request just limits further the scope of the claim but does not add any feature which could support inventiveness in a different way than the features already contained in claim 1 of the third auxiliary request.

Therefore, as already explained under point 1, the introduction of a new request at such a late stage of the procedure without any previous warning and without any proper justification for its late filing amounts to an abuse of procedure and is contrary to procedural fairness.

Therefore, this request, which has been filed for the first time in the course of oral proceedings, has to be regarded as inadmissible.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Rauh P. Krasa