

Internal distribution code:

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

**Datasheet for the decision
of 25 October 2016**

Case Number: T 0781/13 - 3.3.06
Application Number: 05018031.4
Publication Number: 1754780
IPC: C11D17/06, C11D1/22, C11D3/10,
C11D3/02
Language of the proceedings: EN

Title of invention:

A solid laundry detergent composition comprising alkyl benzene sulphonate and a hydratable material

Patent Proprietor:

The Procter & Gamble Company

Opponents:

Henkel AG & Co. KGaA
UNILEVER N.V. / UNILEVER PLC

Headword:

Detergent composition comprising LAS and a hydratable material / PROCTER & GAMBLE

Relevant legal provisions:

EPC Art. 56
RPBA Art. 12(4), 13(1), 13(3)

Keyword:

Admissibility of the main request submitted with the statement of grounds of appeal (patent as granted) : (no) - not examined by the opposition division

Inventive step (First auxiliary request) : (no) (Seventh auxiliary request) : (no)

Admissibility of the Seventh auxiliary request filed at the oral proceedings : (yes)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0781/13 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 25 October 2016

Appellant: The Procter & Gamble Company
(Patent Proprietor) One Procter & Gamble Plaza
Cincinnati, OH 45202 (US)

Representative: Gill Jennings & Every LLP
The Broadgate Tower
20 Primrose Street
London EC2A 2ES (GB)

Respondent 1: Henkel AG & Co. KGaA
(Opponent 1) Henkelstrasse 67
40589 Düsseldorf (DE)

Representative: Henkel AG & Co. KGaA
CLI Patents
Z01
40191 Düsseldorf (DE)

Respondents 2: UNILEVER N.V. / UNILEVER PLC
(Opponents 2) Weena 455/100 Victoria Embankment
3013 AL Rotterdam/London, Greater London EC4Y
0DY (NL)

Representative: Brooijmans, Rob Josephina Wilhelmus
Unilever Patent Group
Olivier van Noortlaan 120
3133 AT Vlaardingen (NL)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 14 February
2013 revoking European patent No. 1754780
pursuant to Article 101(3) (b) EPC.**

Composition of the Board:

Chairman L. Li Voti
Members: P. Ammendola
 C. Heath

Summary of Facts and Submissions

I. This appeal is against the decision of the Opposition Division revoking the European patent No. 1 754 780.

II. Claim 1 of the patent **as granted** reads as follows:

"1. A solid laundry detergent composition in particulate form consisting only of a plurality of particulate components, the composition comprises:

- (i) alkyl benzene sulphonate;*
- (ii) at least 30% by weight of the composition a hydratable material;*
- (iii) from 0% to less than 5%, by weight of the composition, of zeolite builder;*
- (iv) from 0% to less than 5%, by weight of the composition, of phosphate builder;*
- (v) optionally, from 0% to less than 5%, by weight of the composition, of silicate salt; and*
- (vi) a linear or branched, substituted or unsubstituted C₁₂₋₁₈ alkyl alkoxyated sulfate having an average degree of alkoxylation of from 1 to 30 or a C₈₋₁₈ alkoxyated alcohol having an average degree of alkoxylation of from 1 to 10;*

wherein any particulate component comprising at least 5%, by weight of the particulate component, of alkyl benzene sulphonate also comprises at least 15%, by weight of the particulate component, of the hydratable material, and wherein the hydratable material is not sodium sulphate."

III. Opponent 1 filed a notice of opposition on the grounds of Article 100(a) (lack of novelty and inventive step) as well as Articles 100(b) and (c) EPC whilst Opponents 2 filed a notice of opposition on the grounds of Article 100(a) (lack of novelty and inventive step) and Article 100(c) EPC.

The Opponents made reference to, *inter alia*, the following documents:

D3 = DE 2 355 940 A1;

and

D7 = US 5,756,444 A.

IV. The Patent Proprietor replied to the notices of opposition with letter of 17 August 2011. With this reply it filed, *inter alia*, an **amended set of claims as Main Request**. Claim 1 of this Main Request differed from that of the patent as granted only in that the wording at point "vi)" of this latter that read "*or a C₈₋₁₈ alkoxyated alcohol having an average degree of alkoxylation of from 1 to 10*" had been deleted. Herein below this feature of claim 1 as granted (no longer present in claim 1 according to the Main Request pending before the Opposition Division) is also referred to as **the second alternative for ingredient "vi)"**.

V. At the oral proceedings before the Opposition Division the Patent Proprietor filed, *inter alia*, an amended set of four claims as Third Auxiliary Request. Claim 1 of this request differed from that of the Main Request in that the wording at point "ii)" and in the

final paragraph had respectively been amended to
(amendments made apparent by the Board):

*"ii) at least 30% **up to less than 70%** by weight of the
composition a hydratable material"*

and

*"also comprises at least ~~15%~~ **25%**, by weight of the
particulate component, of the hydratable material,...".*

VI. The Opposition Division found *inter alia*, that the subject-matter of claim 1 amended according to then pending Main Request lacked novelty over D3 and that of claim 1 according to any of the then pending Auxiliary Requests lacked an inventive step starting from the closest prior art represented by document D7.

In particular, the Opposition Division found the Applicant's experimental data supplied during examination on 5 September 2008 (identified as document D10) not to support the allegation of an improvement over the disclosure of D7.

VII. The Patent Proprietor (below **Appellant**) filed an appeal against this decision. In its statement of grounds of appeal of 24 June 2013 it defended the patent in its granted version as **Main Request**. The statement of grounds also contained four amended sets of claims as auxiliary requests, whereby the set of claims filed as **First Auxiliary Request** was identical to the Main Request pending before the Opposition Division (see IV, *supra*). The Appellant also gave notice of the intention to file Fifth, Sixth and Seventh Auxiliary Requests, based on various combinations of the First, Second and Third Auxiliary Requests, should that prove relevant.

With the same statement the Appellant also filed

D11 = Experimental Data by N.Somerville-Roberts,
representing a new version of D10; and

D12 = Additional Experimental Data by N.Somerville-
Roberts.

- VIII. Both Respondents I and II (Opponents 1 and 2) objected to all requests on file in view of all grounds of opposition. Moreover, Respondent I objected to the admissibility under Article 12(4) RPBA of the Main Request and of the Second, Third and Fourth Auxiliary Requests. It also announced that it considered inadmissible any future auxiliary request possibly corresponding to those announced but not filed in the statement of grounds.
- IX. With letter of 23 September 2016 the Appellant filed two further amended sets of claims as Eighth and Ninth Auxiliary Requests.
- X. Both Respondents disputed in their replies to the last Appellant's letter, *inter alia*, the admissibility of the last filed Auxiliary Requests.
- XI. During the oral proceedings held as scheduled before the Board on 25 October 2016, the Appellant withdrew the then pending Second to Seventh Auxiliary Requests and filed (at 11.32) a new set of three amended claims labelled as **Seventh Auxiliary Request**. This request only differed from the Third Auxiliary Request with four claims pending before the Opposition Division (see V, *supra*) because of the deletion of claim 2 (dependent

on claim 1) and the consequent renumbering of the remaining claims 3 and 4.

The Appellant **requested** then that the decision under appeal be set aside and that the patent be maintained as granted (Main Request), or based on the First Auxiliary Request filed with the grounds of appeal, or the Seventh Auxiliary Request filed during oral proceedings at 11.32.

Both Respondents **requested** that the appeal be dismissed.

XII. The submissions of the Appellant of relevance herein may be summarised as follows:

Admissibility of the Main Request (patent as granted)

- At the oral proceedings before the Opposition Division the Appellant for the first time had been confronted with a broad construction of the initial wording in claim 1 of the then pending Main Request (identically present also in claim 1 as granted):

"A solid laundry detergent composition in particulate form consisting only of a plurality of particulate components...".

- Such a broad construction had led to a further objection of novelty based on D3 only raised at that hearing.

- Hence, only when preparing the statement of grounds of appeal the Appellant had been in a position to consider that claim 1 of the Main Request pending before the Opposition Division (wherein the second

alternative for ingredient "vi)" had been deleted) resulted from an amendment of claim 1 as granted that was not useful in distinguishing the claimed subject-matter against D3. Had the objection of novelty over D3 been made in the initial notices of opposition, then the Appellant would have taken a different approach in formulating its Main Request, e.g. it could have requested already before the Opposition Division the maintenance of the patent as granted. The Appellant also stressed that it did not intend to request remittal of the case to the Department of First Instance in case the Board would admit the Main Request into the appeal proceedings.

Construction of claim 1 of the First Auxiliary Request

- The skilled person would understand from the wording of claim 1 that the claimed composition must comprise particulates of a different chemical composition and that the fact that sodium sulphate was explicitly defined in the claim as not being part of the component identified under "(ii)" as "*hydratable material*", whose minimum amount was also specified, still allowed the presence of sodium sulphate in substantial amounts in any of the particulates forming the claimed composition (as in the patent examples).

Assessment of inventive step: claim 1 of the First Auxiliary Request

- The solid laundry detergent composition of Example I of D7, which already comprised particles with different chemical composition, could represent a suitable starting point for the assessment of inventive step.

- However, contrary to the finding of the Opposition Division, the claimed composition was not just an alternative to the prior art of departure, but rather solved the technical problem of rendering available a solid laundry detergent composition with lower tendency to caking (i.e. with lower cake strength) than the prior art.

- Evidence of the alleged lower cake strength of the claimed compositions vis-à-vis the prior art of departure was brought with the experimental comparisons reported in D12 and in D11.

- Especially the test report D12, although not exactly corresponding to the comparison between example I of D7 and an example of the claimed subject-matter, had nevertheless been designed so as to render evident that in laundry compositions comprising **particles** containing an **alkylbenzene sulphonate surfactant** (herein below this latter is indicated as **ABS surfactant** and the particles which contain such surfactant are indicated as **ABS-containing particles**) a very low cake strength was only achieved when the ABS-containing particles also comprised sodium carbonate in the amount (of at least 15% by weight) indicated in claim 1.

- This effect could not be derived from D7, which rather suggested the sodium carbonate to be as good in reducing caking as sodium sulphate.

- Hence, the subject-matter of claim 1 of the First Auxiliary Request vis-à-vis the prior art of departure provided a non-obvious solution to the technical problem of rendering available solid laundry detergent compositions in particulate form with a better reduced

tendency to caking upon prolonged storage and, thus, complied with the requirement of Article 56 EPC.

- Moreover, the ingredient in Example I of D7 described in Table I as "C₁₄₋₁₅ alkyl ethoxylated (EO = 0.35) sulfate" was not an ingredient according to the definition of component "(vi)" of claim 1 at issue and, thus, was a further aspect of the prior art of departure that required to be modified in order to arrive at the claimed subject-matter.

Admissibility into the appeal proceedings of the Seventh Auxiliary Request filed during oral proceedings at 11.32 (hereinafter the Seventh Auxiliary Request)

- This request only differed from the Third Auxiliary Request already discussed during opposition and decided upon by the Opposition Division because of the deletion of a dependent claim.

- Therefore, it was admissible.

Assessment of inventive step: claim 1 of the Seventh Auxiliary Request

- The same reasoning given for claim 1 of the First Auxiliary Request applied all the more to claim 1 at issue, which required an amount of carbonate in the ABS-containing particles (of at least 25% by weight) that was clearly higher than that present in Example I of D7.

- Hence, as evident from D12, a lower cake strength had been achieved by the claimed compositions in consequence of their much higher content in sodium carbonate. Since the Respondents had provided no

evidence to the contrary, there was no reason for doubting that the effect existed across the whole scope of claim 1.

- Thus the subject-matter of this claim 1 complied with the requirement of Article 56 EPC.

XIII. The submissions of the Respondents of relevance herein can be summarised as follows.

Non-admissibility into the appeal proceedings of the Main Request (patent as granted)

- The Patent Proprietor had decided to abandon the portion of patented subject-matter corresponding to the second alternative for ingredient "vi)" since its replies to the notices of opposition, in other words at the very beginning of the opposition proceedings.

- With this decision it had prevented the Opposition Division from considering all the grounds of opposition in respect of a substantial part of the initially patented subject-matter. Hence, to allow the Appellant to return to the version of the claims as granted would result in a violation of the principle of procedural economy.

- The Main Request was thus not admissible.

Construction of claim 1 of the First Auxiliary Request

- Contrary to the Appellant's construction of claim 1, the initial part of the claim did not require that the claimed composition comprised a plurality of particles of different chemical composition.

Lack of inventive step: claim 1 of the First Auxiliary Request

- Document D7 explicitly indicated that the composition disclosed therein exhibited "improved flow properties" even after storage (see column 15, lines 52 to 55), i.e. already solved the technical problem addressed in the patent in suit. Hence, Example I of this citation represented a suitable starting point for the assessment of inventive step.

- The claimed subject-matter would differ from this prior art only because of the required presence of at least 30% of sodium carbonate (hydratable material) in the whole composition. In fact, the indication of an ingredient of Example I of D7 in Table I as "C₁₄₋₁₅ alkyl ethoxylated (EO = 0.35) sulfate" contained a manifest error and its sole reasonable interpretation would be that of a product also falling under the definition of ingredient "(vi)" of claim 1 under consideration.

- The two Compositions compared in D12 did not possess, respectively, all the features of Example I of D7 and all those recited in claim 1; thus D12 would provide no sound technical information as to the level of caking strength observable in the claimed composition and that already achieved in the prior art of departure.

- D10/D11 were not relevant since they tested compositions comprising less than 30% carbonate (hydratable material), which were not according to claim 1 at issue.

- In any case, even if D12 was assumed to be apt at proving that certain claimed compositions - e.g. those

comprising in the ABS-containing particles more sodium carbonate than sodium sulphate (as in the ABS-containing agglomerates of Composition 2 of D12, which comprise such ingredients at a weight ratio of about 3:1) - were less prone to caking than the composition of Example I of D7, wherein the spray dried ABS-containing particles contained instead the same ingredients at a weight ratio of about 1:3 (i.e. as in the ABS-containing agglomerates of Composition 1 of D12), still the data in D12 could not possibly render plausible a similar effect for compositions, also encompassed by claim 1 at issue, wherein the ABS-containing particles could be exactly the same as the spray dried ABS-containing particles present in Example I of D7 (or the same as the agglomerates of Composition 1 of D12) but with additional added carbonate up to an amount of at least 30% by weight. Nor could D12 render plausible a similar effect in all those embodiments of claim 1 wherein the sodium carbonate : sodium sulphate ratio in the ABS-containing particles was intermediate (e.g. about 1:1) between the 3:1 and 1:3 ratios respectively present in the compared Compositions 1 and 2 of D12.

- Hence the sole technical problem credibly solved across the whole scope of claim 1 was the provision of an alternative to the prior art of departure.

- D7 already taught in column 3, lines 45 to 49, and in claim 1 that the sodium carbonate : sodium sulphate ratio could vary over the broad range of 1:4 to 4:1. Moreover, in case the "C₁₄₋₁₅ alkyl ethoxylated (EO = 0.35) sulfate" ingredient of Example I was considered by the Board not to be according to the definition of component "(vi)" of claim 1 at issue, D7 also disclosed on column 4, lines 26 to 27, that the C₁₀-C₁₈ alkyl

alkoxy sulphates with 1 to 7 ethoxy groups were especially preferred ingredients of these prior art compositions.

- It was thus obvious to solve the posed problem by modifying the composition exemplified in D7 according to these teachings already contained in the same document.

- Since by carrying out such obvious modifications of the prior art the skilled person would have arrived at subject-matter according to claim 1 of the First Auxiliary Request, this claim 1 was obvious in view of D7 *per se* and, thus, contravened Article 56 EPC.

Non-admissibility into the appeal proceedings of the Seventh Auxiliary Request

- Since this request could have been filed earlier but it was only filed at the hearing, it was not admissible.

Lack of inventive step of claim 1 of the Seventh Auxiliary Request

- Even though claim 1 of this request now required the presence of a higher amount (at least 25% by weight) of sodium carbonate in the ABS-containing particles (and, thus, no longer allowed to use as ABS-containing particles the spray-dried granules present in Example I of D7 or the agglomerates forming Composition 1 of D12), it still embraced compositions in which the ABS-containing particles comprised sodium carbonate and sodium sulphate at a ratio of e.g. about 1:1 for which D12 remained manifestly insufficient at rendering

plausible the achievement of a lower cake strength than the prior art.

- Hence, also the subject-matter of this claim was not allowable in view of Article 56 EPC because it still encompassed compositions which were just an obvious alternative to the prior art.

Reasons for the Decision

Main Request (patent as granted)

1. Non-admissibility of the Main Request
 - 1.1 During the opposition proceedings the Appellant had not defended the patent as granted. Already with its reply to the notices of opposition, it had requested as Main Request that the patent be maintained in amended form on the basis of an amended set of claims. In claim 1 of this Main Request as well as in any of the Auxiliary Requests filed during the opposition, the second alternative for ingredient "vi)" originally present in claim 1 of the patent as granted had been deleted.
 - 1.2 With the statement of grounds of appeal the Appellant nevertheless requested as Main Request in these appeal proceedings that the patent be maintained as granted. This Appellant submitted reasons (XII, *supra*) why this request should be admitted and stressed that it did not intend to request remittal to the Department of first instance in such case.
 - 1.3 Hence, the admissibility of the Appellant's Main Request into the appeal proceedings is within the

discretionary power of the Board as foreseen by Article 12(4) RPBA.

1.4 The Board decided not to admit the Main Request for the following reasons:

1) The Main Request considered by the Opposition Division had already been filed by the Appellant with its reply to the objections under Articles 100(a), (b) and (c) EPC raised by the Respondents in their notices of opposition, i.e. already as a very first reaction to the notices of opposition.

2) The facts presented by the Appellant - i.e. that only at the hearing before the Opposition Division a further objection of novelty had been presented in view of a new and broader construction of the feature expressed by the initial wording of claim 1 - do not appear to logically justify any re-introduction in the main claim of already removed subject-matter, let alone of subject-matter that had been removed by the Appellant already in reply to the objections raised by the Respondents in their notices of opposition. Moreover, the re-introduction of the previously removed subject-matter does not appear to be an adequate response when attempting to overcome the objections raised against the embodiments concerning the first alternative for ingredient "vi)" on which the decision under appeal is based.

3) The Board also remarks that the new novelty objection raised during oral proceedings was based on document D3, which had already been discussed in writing with respect to inventive step of the claimed subject-matter. Moreover, it is apparent from the minutes of oral proceedings before the Opposition

Division that, after the decision of the Division to consider document D3 as novelty destroying, the Patent Proprietor had sufficient time for submitting new auxiliary requests (three in number).

4) The Appellant's decision to defend its case throughout the opposition proceedings limited to the first alternative of ingredient "vi)" has thus resulted in the Department of first instance not considering any of the raised grounds of opposition in respect of the no longer claimed embodiments of the subject-matter of granted claim 1 according to the second alternative for ingredient "vi)".

Reintroducing the latter at the appeal stage would thus mean that the Board has to face a fresh case not dealt with before, even though, in the Board's view, the Patent Proprietor could have already tried to file auxiliary requests containing again such an alternative embodiment at the latest during the oral proceedings before the Opposition Division. Hence, to allow the Appellant in the present case to revert to the original version of claim 1 as granted is against the principle of procedural economy.

Hence, the Board exercising its discretionary power under Article 12(4) RPBA decides not to admit the Appellant's Main Request into the proceedings.

First Auxiliary Request

2. This request, filed with the statement of grounds of appeal, is identical to the set of claims forming the Main Request decided upon by the Opposition Division and, thus, its admissibility into the appeal is not at stake.

Since it has turned out that claim 1 of this request lacks of an inventive step for the reasons indicated below, the Board did not need to consider the Respondents' other objections thereto.

3. Lack of inventive step: claim 1

3.1 Construction of claim 1 according to the Appellant

3.1.1 According to the Appellant, the wording of this claim is to be construed as implying inter alia:

a) that the claimed composition in particulate form must comprise particulates of a different chemical composition,

and

b) that sodium sulphate, although explicitly defined in the claim as not being part of the "*hydratable material*", may nevertheless be present in substantial amounts in any of the particulates forming the composition (as in the patent examples).

3.1.2 For the sake of argument in favour of the Appellant, the above construction of claim 1 is accepted in the following reasoning on inventive step. Given the negative outcome of the assessment of inventive step, the Board had no reason to consider the alternative constructions for this claim 1 maintained by the Respondents.

3.2 The closest prior art

3.2.1 The prior art disclosed in D7, considered in the decision under appeal as representing the closest prior art, deals with substantially the same technical problem as the claimed solid laundry detergent

compositions (i.e. to reduce the tendency of laundry compositions in particulate form to caking) (see D7, column 1, lines 41 to 50 and column 2, lines 26 to 30) and is, therefore, a suitable starting point for the assessment of inventive step.

- 3.2.2 The Board, also noting that this prior art is substantially free of aluminosilicate and phosphate builders and that the exemplified compositions are explicitly disclosed to exhibit "improved flow properties" and reduced caking even after storage (see column 15, lines 52 to 58) and comprise ABS surfactant and sodium carbonate, finds Example I of D7 to represent the closest prior art.

At the oral proceedings, the parties agreed with this assessment.

- 3.2.3 The composition of example I of D7 has been obtained by the process described in the first paragraph of column 16 of this citation, in which spray dried granules are prepared by using (all) the surfactants, sodium carbonate and sodium sulphate.

Hence, it is also apparent from the chemical composition of Example I reported in Table I of D7 that these spray-dried granules *per se* are ABS-containing particles which comprise more than 15% by weight of sodium carbonate. Moreover, considering that some of the (post-added) other ingredients mentioned in Table I are solid, it is also common ground among the Parties that beside (the about 90% by weight of) such granules, Example I of D7 also comprises other particulates with a chemical composition different from that of the spray dried granules.

However, in this prior art example the total amount of sodium carbonate (i.e. the only ingredient present in this example that also falls under the definition of "*hydratable material*" in claim 1 at issue) is less than 30% by weight.

The above conclusions of the Board as to the prior art are also not in dispute.

As to the disputed presence in Example I of D7 of an ingredient falling under the definition of ingredient "(vi)" given in claim 1 under consideration, the Board concurs with the Appellant, that the ingredient described in Table I as "C₁₄₋₁₅ alkyl ethoxylated (EO = 0.35) sulfate" does not necessarily fall under such definition.

- 3.3 The solved technical problem identified by the Appellant
 - 3.3.1 According to the Appellant's line of reasoning, the advantageous property of the claimed compositions described in the patent as granted, i.e. "*a good cake strength, especially after storage*", (see paragraphs [0016] and [0017] vis-à-vis the whole section on the background of the invention in the patent description) for the person skilled in the art also necessarily implied that the patented compositions had a reduced tendency to caking and, thus, remained free flowing even after prolonged storage.
 - 3.3.2 The Appellant conceded that also the prior art possessed such property to some extent (see in D7, column 15, lines 52 to 58).

3.3.3 However, in the opinion of the Appellant, the level of cake strength achieved by the claimed composition would be particularly low because of the incorporation in the ABS-containing particles of high amounts (i.e. at least 15% by weight of the particles) of a "hydratable material" different from sodium sulphate, such as sodium carbonate. Hence, the cake strength of the claimed composition was even lower than that observable in the prior art of departure.

This would be proven by the comparative experimental evidence provided in D12 which compared two ABS-containing agglomerates labelled Compositions 1 and 2, wherein the overall amount of sodium carbonate and sodium sulphate was the same, but in which the ratio among these two ingredients changed. The provided data demonstrated that Composition 2, in which the amount ratio of sodium carbonate : sodium sulphate can be considered to be, as submitted by the Parties, approximately 3:1, produced less strong caking than Composition 1 in which, similarly to the spray dried granules present in Example I of D7, the amount ratio of sodium carbonate : sodium sulphate is about 1:3.

3.3.4 On this basis, the Appellant considered it plausible that the technical problem solved by the subject-matter of claim 1 at issue vis-à-vis the prior art cited was the provision of solid laundry detergent compositions in particulate form with a reduced tendency to caking upon prolonged storage.

3.3.5 The Board wishes to preliminarily stress the undisputed fact that the patent in suit does **not** contain any statement (not to mention any experimental data or theoretical explanations) as to the fact that e.g. sodium carbonate (and possibly also magnesium sulphate

or any other material that the inventors possibly intended to identify as "*hydratable materials*") would be **more effective than other materials**, let alone more effective than specifically sodium sulphate, which had been undisputedly also **used to provide anti-caking properties**.

The only possibly relevant disclosure provided in the patent as granted is the mere exclusion, without any further comment (see the end of paragraph [0025] of the patent description), of sodium sulphate among the "*hydratable materials*" of the invention.

Since the technical effect alleged by the Appellant is not even mentioned in the patent as granted but only presented as (possibly) implied therein, the Board finds that the onus of proving the plausibility across the whole scope of claim 1 of such alleged technical effect clearly lies on the side of the Appellant.

3.3.6 The Board then finds the reasoning of the Appellant resumed at 3.3.3, *supra*, manifestly unconvincing if only because, as discussed below, the evidence provided with D12 is manifestly insufficient at rendering plausible the occurrence across the whole scope of claim 1 at issue of the alleged technical effect.

3.3.7 The insufficiency of the data in D12 is immediately evident when considering that claim 1 of the Auxiliary Request 1 embraces compositions in which a substantial fraction of the overall amount of e.g. sodium carbonate (the preferred "*hydratable material*" for which claim 1 at stake requires minimum overall amount of 30% by weight) can be present in particles not containing any ABS surfactant. Indeed, in all invention examples in the patent in suit an amount (of at least 17% by weight) of sodium carbonate is present in the additional particles not containing any ABS.

Hence, even though the amount of sodium carbonate present in the comparative agglomerates of Composition 1 (or in the spray dried granules used in Example I of D7 that Composition 1 of D12 aims at simulating) is less than 30% by weight, the claim under consideration nevertheless embraces compositions in which the ABS-containing particles can be **exactly the same** as those of said example I but which comprise additional added carbonate up to an amount of at least 30% by weight, i.e. compositions for which no advantage can be predicted on the basis of D12.

3.3.8 Moreover, the insufficiency of D12 is also apparent in view of (many) embodiments of the claimed subject-matter in which the ABS-containing particles are **different** from Composition 1.

The experimental comparison in D12, wherein Composition 2 comprises sodium carbonate and sodium sulphate in an amount ratio of about 3:1, may at most render plausible that laundry compositions in which the ABS-containing particles comprise these ingredients in an amount ratio of at least about 3:1 are less prone to caking than the composition of Example I of D7 (wherein the ABS-containing spray dried granules comprise instead sodium carbonate and sodium sulphate at about 1:3 ratio and are, thus, comparable to the agglomerates of Composition 1 of D12).

Claim 1 at stake embraces however compositions wherein the ABS-containing particles have a sodium carbonate : sodium sulphate amount ratio intermediate (as in the case, for instance of ratios of about 1:1) between the ratios present in the compared Compositions 1 and 2 of D12 or even closer to 1:3 (i.e. to the ratio in the agglomerates of Composition 1 of D12 and in the spray

dried granules of Example I of D7) than to 3:1 (i.e. to the ratio in the agglomerates of Composition 2 used in D12 for representing the ABS-containing particles of the invention). Hence, no effect can plausibly be predicted on the basis of D12 for all those embodiments of the invention in which the sodium carbonate : sodium sulphate amount ratio in the ABS-containing particles is, for instance, about 1:1 or encompassed between 1:1 and 1:3.

3.3.9 As regards the experimental evidence D10/D11, on which the Appellant however did no longer rely at the oral proceedings, the Board agrees with the Respondents (XIII, *supra*) that the comparisons contained in this evidence are not relevant since the tested compositions comprise less than 30% carbonate (hydratable material) and are not in accordance with claim 1 at issue.

3.3.10 In view of the above the Board rejects as insufficiently substantiated the Appellant's allegation that the technical problem solved by the subject-matter of claim 1, throughout its ambit, vis-à-vis the prior art was the provision of laundry detergent compositions with a reduced tendency to caking.

3.4 The technical problem identified in the patent

3.4.1 The Board finds (for substantially the same reasons resumed above at 3.3.1) that the disclosure in the patent in suit implies that the patented compositions must have a low tendency to caking and, thus, remain free flowing even after prolonged storage.

3.4.2 Since, as also conceded by the Appellant (see 3.3.2 *supra*), the prior art appears to possess such property as well, the Board identifies the technical problem

solved in the provision of further solid laundry detergent compositions in particulate form with low tendency to caking, i.e. in the provision of an alternative to the prior art.

3.5 The solution

The proposed solution is the laundry detergent composition of claim 1 at issue that (when construed as proposed by the Appellant, see above 3.1) requires *inter alia* that the composition:

- comprises particulates of different chemical composition,
- has an overall content of at least 30% by weight of a "hydratable material" that is not sodium sulphate,
- must also comprise ABS and the ingredient defined under "(vi)",

and

that any particulate comprising at least 5% by weight (of the particulate) of ABS comprises an amount of "hydratable material" corresponding to at least 15% by weight of that particulate.

3.6 Success of the solution

The Board is satisfied that the proposed solution solves the posed technical problem across the whole scope of claim 1. This is also undisputed by the Respondents.

3.7 Obviousness of the solution

3.7.1 The Board stresses preliminarily that, as also apparent from the description of Example I of D7 reported in Table I (see also 3.2, *supra*), the solution proposed in

claim 1 differs from the prior art of departure in that claim 1 at issue requires:

- the overall amount of "*hydratable material*" to be above 30% by weight of the whole composition and
- the presence of ingredient "(vi)" (whereas Example I of D7 appears to contain the possibly similar but not necessarily corresponding ingredient "C₁₄₋₁₅ alkyl ethoxylated (EO = 0.35) sulfate").

3.7.2 The Board notes that, as also correctly observed by the Respondents and undisputed by the Appellant, D7 itself explicitly indicates the possibility of changing the sodium carbonate : sodium sulphate ratio within the range of of 1:4 to 4:1 and, preferably, from 1:1 to 1:3 (see D7, claims 1 and 3, and column 3, lines 45 to 49).

Hence, a skilled person starting from Example I would consider obvious to solve the posed technical problem by modifying the composition of Example I according to such teaching. The Board notes that upon bringing the sodium carbonate : sodium sulphate ratio used in the preparation of Example I of D7 close to the preferred value of 1:1 (while keeping constant the overall weight of these two ingredients) one arrives at spray dried granules, i.e. ABS-containing particles, with up to 35% by weight or more of sodium carbonate. Hence, this obvious modification of the prior art of departure also ensures the compliance with the requirement of the presently claimed composition that the overall amount of "*hydratable material*" must be at least 30% by weight.

3.7.3 However, to arrive at the claimed subject-matter a skilled person also needs reasons for considering replacing the C₁₄-C₁₅ alkyl ethoxylated sulphate used in

Example I (i.e. the "C₁₄₋₁₅ alkyl ethoxylated sulfate" of Table I of D7 apparently carrying "0.35" EO units) by a similar compound that falls under the definition of ingredient "(vi)" as given in claim 1 at issue.

It is undisputable that D7 also prompts its skilled reader to such modification. Indeed, this citation explicitly states in column 4, lines 26 to 27, that among the C₁₀-C₁₈ alkyl alkoxy sulphate surfactant possibly present in the compositions disclosed in this citation, those especially preferred are those with 1 to 7 EO. Hence, D7 itself certainly suggests among the preferred alternatives to the alkyl alkoxy sulphate used in D7, many compounds also falling under the definition of component "(vi)" in the present claim 1, such as those most similar to the used C₁₄-C₁₅ alkyl ethoxylated sulphate, in which the number of EO is raised from the apparent value of "0.35" to any of the preferred values of 1 to 7.

- 3.7.4 Summing up, to arrive at compositions encompassed by the definition of claim 1 at issue in which the amount of "*hydratable material*" is, for instance, well above 30% by weight of the whole composition (and simultaneously also constitutes at least 15% by weight of the ABS-containing particles) and which also comprise ingredient "(vi)", a skilled person starting from Example I of D7 only needs to modify this latter according to the teachings in that very same citation i.e. by, for instance, changing the amount ratio sodium carbonate : sodium sulphate to the preferred 1:1 ratio and replacing the C₁₄-C₁₅ alkyl ethoxylated sulphate used in the example with one of the preferred ones having an EO degree in the range of 1 to 7.

3.7.5 As the modifications of the prior art of departure required to arrive at the composition of claim 1 are among those explicitly taught for producing alternative embodiments of the same prior art, the former imply manifestly no inventive ingenuity and the subject-matter of claim 1 provides a solution to the posed technical problem that is found obvious in view of D7 itself.

3.8 If only for this reason, the Board concludes that claim 1 of the First Auxiliary Request does not comply with Articles 52(1) and 56 EPC and, hence, that this request is not allowable.

Seventh Auxiliary Request

4. Admissibility of the Seventh Auxiliary Request

4.1 This Auxiliary Request was filed (at 11:32) at the oral proceedings before the Board.
Its admissibility into the appeal proceedings is thus within the discretion of the Board as foreseen by Articles 13(1) and (3) RPBA.

4.2 The Board notes that the set of three claims forming this request only differs from the set of four claims according to the Third Auxiliary Request pending before the Department of first instance by the deletion of a dependent claim and the consequent re-numbering of the remaining two dependent claims (see sections V and XI above).

4.2.1 The Board stresses in particular that claim 1 of the present Seventh Auxiliary Request is therefore identical to claim 1 of the Third Auxiliary Request that had been discussed among the Parties at the

hearing before the Opposition Division and found in the decision under appeal to lack an inventive step when starting from Example I of D7.

- 4.2.2 Since the Seventh Auxiliary Request is substantially equivalent to a request already filed, discussed and decided upon during the opposition proceedings, no issues against its admissibility may arise under Article 13(3) RPBA.
- 4.2.3 Hence, the Board in exercising the discretion foreseen under Article 13(1)RPBA decides to admit this request into the appeal proceedings despite its manifestly late filing.
- 5. Lack of inventive step: claim 1
 - 5.1 Claim 1 of this request differs from that of the First Auxiliary Request in that the wording in point "ii)" and in the final paragraph have respectively been amended to (amendments made apparent by the Board):

*"ii) at least 30% **up to less than 70%** by weight of the composition a hydratable material"*

and

*"also comprises at least ~~15%~~ **25%**, by weight of the particulate component, of the hydratable material,..."*
 - 5.2 As regards this claim 1, the closest prior art remains that identified in point 3.2, *supra*, i.e. example I of D7.
 - 5.3 Even if claim 1 of the Seventh Auxiliary Request now requires the amount of "hydratable material" in the

ABS-containing particles to be at least 25% by weight of these particles, still it embraces the compositions identified at point 3.3.8 (third paragraph) above (i.e. already claimed in claim 1 of the First Auxiliary Request) that comprise ABS-containing particles substantially different from those of the composition of the invention represented by Composition 2 in D12 and for which the data in D12 are insufficient at rendering plausible that they may solve the technical problem identified by the Appellant with respect to the closest prior art, i.e. that of providing a solid laundry detergent composition in particulate form with a reduced tendency to caking upon prolonged storage (3.3.4, *supra*).

- 5.4 As regards claim 1 at issue, the technical problem convincingly solved remains thus that formulated in point 3.4.2, *supra*, i.e. the provision of further solid laundry detergent compositions in particulate form with low tendency to caking, i.e. the provision of an alternative to the prior art.
- 5.5 Accordingly, also the reasons given above at 3.7.2 and 3.7.3 for the lack of inventive step of claim 1 of the First Auxiliary Request identically apply to claim 1 at issue.
- 5.5.1 Therefore, similarly to the argument exposed in point 3.7.4 above, a skilled person starting from Example I of D7 would only need to modify this latter according to the teaching in that very same citation i.e. by, for instance, changing the amount ratio sodium carbonate : sodium sulphate to the preferred 1:1 ratio in order to arrive at a composition comprising at least **25%** by weight of sodium carbonate (hydratable material) in the ABS-particulate component and at least 30% **up to less**

than 70% by weight of carbonate (hydratable material) in the overall composition.

5.6 Hence, the Board concludes that also claim 1 of the Seventh Auxiliary Request does not comply with Articles 52(1) and 56 EPC and, hence, that also this request is not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



D. Magliano

L. Li Voti

Decision electronically authenticated