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**Datasheet for the decision
of 5 June 2013**

Case Number: T 2160/10 - 3.3.06

Application Number: 03772309.5

Publication Number: 1567289

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Language of the proceedings: EN

Title of invention:
Acidic cleaning method for machine dishwashing

Patent Proprietor:
ECOLAB INC.

Opponent:
The Procter & Gamble Company

Headword:
Acidic cleaning method/ECOLAB

Relevant legal provisions:
EPC Art. 54(1)(3)
EPC R. 80

Relevant legal provisions (EPC 1973):
EPC Art. 84, 111(1), 123(2)(3)

Keyword:
"Novelty - Main Request (no) - First Auxiliary Request (yes)"
"Amendments - Allowable (yes) - First Auxiliary Request"
"Remittal (yes)"

Decisions cited:
-

Catchword:
-



Case Number: T 2160/10 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 5 June 2013

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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 4 June 2010
revoking European patent No. 1567289 pursuant
to Article 101(3) (b) EPC.

Composition of the Board:

Chairman: B. Czech
Members: G. Santavicca
U. Tronser

Summary of Facts and Submissions

I. The appeal by the patent proprietor lies from the decision of the Opposition Division revoking European patent No. 1 567 289.

II. The patent had been opposed in its entirety on the grounds of lack of novelty and an inventive step (Article 100(a) EPC 1973) as well as of insufficiency of the disclosure (Article 100(b) EPC 1973).

III. The decision under appeal dealt with the claims as granted (main request) as well as with the amended claims according to the first and second auxiliary requests, both submitted during the oral proceedings held on 25 May 2010. Claim 1 as granted reads as follows:

"1. A process for continuous or discontinuous machine dishwashing, in which the tableware is treated at least in one process step with an acidic cleaning solution and, in another process step, with an alkaline cleaning solution, comprising the steps of

(a) applying an acidic aqueous cleaning solution before the final rinse cycle or the final rinse zone to the at least partly soiled tableware and

(b) removing the acidic aqueous cleaning solution and the soil in one or more following steps,

the at least one alkaline treatment taking place before and/or after the acidic treatment and the alkaline and at least one acidic aqueous cleaning solution at least partially neutralizing one another."

Compared to Claim 1 as granted, Claim 1 of the first auxiliary request additionally included the feature that the pH of the wastewater produced by the process is below 12.

IV. As regards the main and first auxiliary request, in the decision under appeal, it was *inter alia* held that:

- (a) The ground of insufficiency of the disclosure (Article 100(b) EPC 1973) did not prejudice the maintenance of the patent in suit.
- (b) The subject-matter of the claims as granted (main request) was novel having regard to documents D1 (EP 0806472 A), D2 (WO 95/14424 A) or D5 (WO 98/30673 A).
- (c) However, the process illustrated by Run 3 of D4 (WO 02/100993 A1) (Examples) was almost identical to Example 1 of the patent in suit, and attained a scoring of 9.5/10 in the cleaning performance. The removal of soil and acidic solution by the second alkaline solution was a final rinse. An at least partial neutralisation between alkaline and acidic solutions inevitably occurred, as no rinse step between alkaline and acidic treatments were disclosed. The process of Claim 1 as granted thus lacked novelty over D4.
- (d) As regards the first auxiliary request, Run 3 of D4 implicitly disclosed the production of wastewater having a pH of less than 12. So the process of Claim 1 of the first auxiliary request too lacked novelty over D4.

V. On 2 July 2010 the appellant filed an appeal and paid the appeal fee on the same day. In its statement setting out the grounds of appeal, received on

12 October 2010, the appellant requested the maintenance of the patent as granted (as main request) and resubmitted the first and second auxiliary requests dealt with in the decision under appeal. With a letter of 22 June 2011, the appellant submitted third and fourth auxiliary requests. With a letter of 11 April 2013, in response to a communication of the Board issued in preparation for oral proceedings, the appellant filed four sets of claims as new first to fourth auxiliary requests and announced that the first and second auxiliary requests submitted with the letter of 12 October 2010 and the third and fourth auxiliary requests filed with the letter of 22 June 2011 were to become the fifth to eighth auxiliary requests, respectively.

Compared to Claim 1 as granted, Claim 1 of said new first auxiliary request was amended as follows:

- (a) the feature "the at least one alkaline treatment taking place before and/or after the acidic treatment" was replaced by the feature "the alkaline treatment taking place before and after the acidic treatment" (penultimate line of Claim 1);
- (b) the feature "and the pH of the wastewater produced by the process being below 12" was added at the end of Claim 1.

VI. In its written submissions the respondent maintained objections under Articles 100(a) and (b) EPC against the patent as granted and *inter alia* raised an objection under Article 84 against Claim 1 of the new first auxiliary request.

VII. Oral proceedings were held on 5 June 2013.

VIII. The appellant argued essentially as follows:

Main Request

Interpretation of Claim 1 as granted

- (a) Claim 1 concerned a process for dishwashing which produced clean dishes, i.e. no longer contaminated with acidic or alkaline solution and soil. So the process of Claim 1 required a final rinse (step (a)) and removal of soil and aqueous cleaning solutions from the dishes and the system (step (b)). This interpretation of Claim 1 was supported by the general description of the patent in suit (Paragraphs [0003] and [0014] were referred to), which acknowledged the prior art and taught that a final clear-wash (step or zone) with water (rinse) was usual, in order to obtain a neutral pH on the dishes.

Novelty

- (b) The objection that Claims 1, 2 and 9 of D4, when read in combination, disclosed the process of Claim 1 as granted was not convincing, as an at least partial neutralisation was not addressed by these claims. Also, Claim 9 did not make it clear whether a rinse or an acidic cleaning step was used. Thus, the claimed subject-matter was novel over D4.

First Auxiliary Request

Amendments

- (c) Compared to Claim 1 as granted, Claim 1 of the first auxiliary request was limited to a 3-step cleaning process (an alternative already present in Claim 1 as granted) incorporating the features of granted Claim 17. The feature defining the 3-step cleaning (i.e. "the alkaline treatment taking place before and after the acidic treatment") did not mean that the two alkaline treatments had to be identical, as alleged by the respondent. The claim was neither inherently contradictory nor ambiguous. Hence, it was clear (Article 84 EPC 1973).

Interpretation of Claim 1

- (d) Compared to the process of D4, the process of Claim 1 according to the first auxiliary request required wastewater with a pH of less than 12, i.e. no longer strongly alkaline. At the oral proceedings, the appellant argued that the wastewater included the totality of alkaline and acidic solutions, which were usually collected in one container and discharged into the sewer. Usually, depending on its pH, the wastewater required neutralisation, i.e. further chemistry, before being discharged.

Novelty

- (e) Claims 1, 2 and 9 of D4 were silent on the pH of the wastewater. The pH of the wastewater produced by dishwashing was not addressed at all in D4.
- (f) Run 3 described in the examples of D4 concerned a standard test method with 3 cleaning steps

(alkaline/acidic/alkaline), not a usual dishwashing procedure. It was not clear whether alkaline solution (d) of Run 3 was fresh or soiled alkaline solution (a). Even if alkaline solution (d) were fresh alkaline solution (a), the cleaned dishes would still contain alkalinity. It was not automatically implied that Run 3 had a final rinse. As Run 3 did not comprise a rinse, D4 did not disclose application of acidic solution (b) before the final rinse. Also, D4 did not disclose removal of acidic cleaning solution (b) from the dishes and the system in one or more of the following steps. At the oral proceedings the appellant argued that in Run 3 the tank of the dishwashing machine in which the solutions were collected could have a volume of 20 or up to 50 litres. Only a little amount of acidic solution was sprayed on the dishes, and contacted the high alkaline (pH > 13) solution. The pH of the wastewater thus never went below 12. In any case, Example 1 of the patent did not fall under Claim 1 of the first auxiliary request.

- (g) Novelty could only be objected to if D4 disclosed all of the features of Claim 1 in combination. The description of the dishwashing procedures in D4 or its claim 9 could not, however, be combined with Run 3 to show that rinse step and removal of acidic solution and soil were implicit. Run 3 of D4 was similar to a run of Example 1 in the patent. The latter was however focussed on the question of what happened when the acid content was decreased to less than 1% by weight. So Run 3 of D4 and Example 1 of the patent were not identical. Features such as a pH of the wastewater of less than 12 could not

be deduced from a comparison between the examples of D4 with those of the patent. Legal requirements for wastewater were not a criterion for assessing novelty.

- (h) Thus, the process of Claim 1 of the first auxiliary request was novel over D4.

Sufficiency of the disclosure

- (i) The claimed process was sufficiently disclosed.

Remittal

- (j) Since inventive step had not been sufficiently dealt with in opposition proceedings, and not at all in the decision under appeal, the case should be remitted back to the Opposition Division for further prosecution with regard to inventive step.

IX. The respondent essentially argued as follows:

Main Request

Interpretation of Claim 1 as granted

- (a) No distinct rinse step, let alone one with fresh water, was required by the feature "before the final rinse cycle" in step (a) of Claim 1. Nor was any rinse mentioned in Example 1 of the patent either, even though said example was encompassed by Claim 1. Hence, the alleged requirement of a distinct final rinse step in the process of Claim 1 was not consistent with Example 1, which also did

not mention any further final step to be carried out after the second alkaline treatment. The invoked general description of the patent dealt with conventional processes. So if it were to be assumed that Claim 1 required a distinct final rinse, then such a final rinse also had to be implicit in Example 1 of the patent in suit.

- (b) Step (b) did not require anything special as regards the removal of acidic solution. In fact, steps (a) and (b) of Claim 1 had to be understood as a couple of features defining that the acidic aqueous solution applied in step (a) was removed from the tableware together with the soil in step (b). Soil removal according to step (b) did not mean 100% removal (in Example 1 of the patent no scoring of 10/10 was attained). There was nothing in Claim 1 about a removal of acidic solution and soil from something other than tableware, let alone from an unspecified "system". There was nothing in the description of the patent in suit suggesting that the plain meaning of the wording of steps (a) and (b) had to be interpreted in another way. Paragraph [0003] of the patent acknowledged the prior art. Thus, removal of acidic solution and soil from the "system" only in one or more steps distinct from the second alkaline treatment step was inconsistent with the wording of Claim 1.
- (c) The required "at least partial neutralisation" resulted from the contact between alkaline and acidic solutions, and served the purpose of distinguishing the process of Claim 1 from the disclosure of D5.

Novelty

- (d) The process of Claim 1 as granted lacked novelty *inter alia* over the process defined in Claims 1, 2 and 9 of D4. Claim 1 of D4 defined a machine dishwashing process comprising an alkaline and an acidic step. Claim 2 defined a further alkaline step after the acidic step. Claim 9, which referred back to Claims 1 and 2, defined a final rinse step. A contact between acidic and alkaline solutions, hence partial neutralisation, was implicitly disclosed by Claim 2, as this was the only interpretation consistent with the description of D4 (page 3, last paragraph, and page 4, last sentence of the second paragraph, were referred to). The contact between alkaline and acidic solutions distinguished the 3-step cleaning process as defined in Claim 2 of D4 from the process disclosed by D5, acknowledged in D4. So D4 already claimed the process of Claim 1 as granted.

First Auxiliary Request

Amendments

- (e) Claim 1 of the first auxiliary request comprised (after step b)) the amendment "the alkaline treatment taking place before and after ...". The expression "the alkaline treatment" implied that the same alkaline treatment, at the same pH, was applied before and after the acidic treatment. As apparent from Claim 12, this was not necessarily the case. This contradiction arising from the

amendments resulted in a lack of clarity (Article 84 EPC 1973) of Claim 1.

Interpretation of Claim 1

- (f) The respondent pointed out that at the oral proceedings before the Board, for the first time ever, the appellant had declared that Example 1 of the patent did not fall under Claim 1 of the first auxiliary request. However, a pH below 12 for the wastewater was an inevitable result of any machine dishwashing process, because of legal requirements. Also, the use of further chemistry in order to neutralise the wastewater, if any, was not excluded by Claim 1.

Novelty

- (g) The process of D4 used alkaline solutions having a pH of less than 13 and acidic solutions having a pH of less than 2, which upon contact produced partial neutralisation. According to the patent (Paragraphs [0008] and [0014]), partial neutralisation lowered the pH. Claim 9 of D4 required a final acidic or neutral rinse. Thus, partial neutralisation and/or a rinse step inevitably led to a pH below 12 for the wastewater produced by the process of Claims 1, 2 and 9. A pH lower than 12 was mandatory because of legal requirements.
- (h) Run 3 of the examples of D4 and its repetition with phosphoric acid illustrated a machine dishwashing process comprising application, on artificially soiled dishes, of a first alkaline solution a),

then of an acidic solution b) and, after short time of action c), of an alkaline solution d). Since the solution applied in step d) was a wash solution, it contacted and removed the acidic solution b) from the dishes. As solution d) was alkaline, partial neutralisation also occurred. The second alkaline solution was similar but not necessarily the same as the first. Thus, either a clean solution d) was applied as a final washing/rinse step, or the same alkaline solution was applied in steps a) and d), as alleged by the appellant. The latter implied a final wash with soiled solution a), which wash must then be followed by a rinse before assessment of the cleanliness. This was apparent from the scoring attained by Run 3 in the performance cleaning (9.5/10), which represented a cleaned dish.

- (i) The implicit presence of a rinse step in Run 3 of D4 also arose from further considerations.
 - (i) Run 3 of D4 was not a standard cleaning process, only the soiling step was standard.
 - (ii) Since Run 3 aimed at assessing removal of starch when carrying out dishwashing, it was not to be read in isolation from the general disclosure of D4 (cleaning dishes, removing starch without using high alkalinity) and from Claim 9, which defined a final rinse.
 - (iii) Example 1 in the patent, a run of which was identical to Run 3 of D4, did not mention a rinse step either, even though it was encompassed by Claim 1 as granted.
 - (iv) So, at least by analogy with Example 1 of the patent, it was implicit that Run 3 and

its repetition with phosphoric acid
comprised a final rinse step.

- (j) Although Run 3 did not mention any wastewater and its pH, Run 3 was nevertheless embedded in the invention of D4, as defined by e.g. Claims 2 and 9. It was apparent from the general disclosure of D4 (Point X(g), *supra*), that partial neutralisation and/or the rinse step inevitably led to a pH of the wastewater of less than 12. So the feature relating to the pH of the wastewater was inherent in the process of D4, and mandatory as well.
- (k) Thus, the process of Claim 1 was not novel over D4.
- (l) As Claim 1 of the first auxiliary request included a sequence of alkaline/acidic/alkaline steps, novelty over D1, D2 and D5 was no longer objected.

Insufficiency of the disclosure

- (m) If step (b) of Claim 1 was not interpreted as implying the removal of the acidic solution and the soil from the system, as alleged by the appellant, the ground of opposition under Article 100(b) EPC did not apply to the claimed subject-matter of the first auxiliary request.

Remittal

- (n) At the oral proceedings, the respondent too considered that the remittal of the case to the Opposition Division would be the proper course of action if novelty were to be accepted by the Board.

X. The appellant requested that the decision under appeal be set aside and that the case be remitted to the Opposition Division for further prosecution with regard to inventive step on the basis of the patent as granted or, alternatively, on the basis of the claims according to one of the first to fourth auxiliary requests submitted with the letter dated 11 April 2013, or on the basis of either the fifth or the sixth auxiliary request submitted with the letter dated 12 October 2010, or on the basis of either the seventh or the eighth auxiliary request submitted with the letter dated 22 June 2011.

XI. The respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

Main Request

Interpretation of Claim 1 as granted

2. It has to be decided whether the process of Claim 1 requires, having regard to its step (a), a distinct final rinse cycle and, having regard to its step (b), the removal of acidic solution and soil from the system.

2.1 Steps (a) and (b) of Claim 1 as granted are part of a machine dishwashing process comprising the treatment of tableware with at least an acidic cleaning solution and, in a another step, with an alkaline cleaning solution.

As defined in Claim 1, the acidic and alkaline steps may take place according to one of the following alternative sequences:

- (i) the alkaline treatment precedes the acidic treatment;
- (ii) the alkaline treatment follows the acidic treatment;
- (iii) an alkaline treatment precedes and follows the acidic treatment.

2.2 In sequence (i) the acidic treatment can be followed by one or more further/final rinse steps, whilst in sequences (ii) and (iii) the acidic treatment is always followed by an alkaline treatment, which alkaline treatment can be followed by one or more further/final rinse steps. So, in each case, the application of the acidic solution as defined in Claim 1 precedes the final rinse step, if any.

2.3 Whatever the sequence, a distinct final rinse cycle or zone (step) is defined by the wording of step (a) ("before the final rinse ..."), albeit indirectly, because no such feature as "... a final rinse ..." is defined beforehand in Claim 1. Hence, the process of Claim 1 comprises a final rinse step (be it cycle or zone), the nature of which is not, however, further defined.

2.4 As regards the feature of step (b) "removing the acidic aqueous solution and the soil in one or more following steps", in the context of Claim 1, it can only mean:

- (i) for the first sequence (Point 2.1(i), *supra*), removal of acidic aqueous solution and soil in one or more following rinse steps;

(ii) for the second and third sequences (Point 2.1(ii) and (iii), *supra*), removal of acidic aqueous solution and soil in one (the following alkaline step) or more of the following steps (alkaline and rinse steps).

2.5 Since an aqueous alkaline solution is suitable for washing away any acidity previously applied on the tableware, removal of acidic solution and (detached or swollen or weakened or partially dissolved) soil from the tableware is implicitly attained upon application of an aqueous alkaline solution, as in the second and third sequences defined in Claim 1 as granted (Point 2.1(ii) and (iii), *supra*).

2.6 Claim 1 does not mention any "system", nor, in step (b), a removal of the alkaline solutions. So Claim 1 has nothing to do with the removal of wastewater from a system. In the Board's understanding, the removal in step (b) concerns what is to be removed after step (a), not what will be removed at the end of the process from the system, whatever the latter term means.

2.7 Therefore, in the context of the process of Claim 1, steps (a) and (b) encompass the application of an acidic aqueous solution on still soiled tableware and its removal, together with soil, therefrom.

2.8 This interpretation is in line with the application as filed (page 8, lines 2 to 8; examples) and the further claims of the patent in suit as granted (e.g. Claim 15).

Novelty

3. Novelty of the process of Claim 1 was *inter alia* challenged with regard to the disclosure of document D4, the contents of which undisputedly belong to the state of the art pursuant to Article 54(3) EPC.
- 3.1 D4 (Claim 1) concerns a cleaning process for commercial or domestic cleaning machines, comprising an alkaline and an acid cleaning step as well as one or more additional alkaline and/or acid cleaning steps.
 - 3.1.1 The at least one alkaline cleaning step is preferably followed by an acid cleaning step and this acid cleaning step is followed by an alkaline cleaning step, with the proviso that there are in total at least three cleaning steps (Claim 2).
 - 3.1.2 After the final cleaning step, the surface being cleaned can be treated with a preferably acid or neutral aqueous solution containing at least one clear-rinsing component (Claim 9).
 - 3.1.3 The proviso "in total at least three cleaning steps" in Claim 2 (Point 3.1.1, *supra*) unambiguously constitutes a disclosure of a process consisting of three steps in the following sequence: alkaline cleaning/acidic cleaning/alkaline cleaning (i.e. with no intermediate rinse step between them).
 - 3.1.4 The alkaline solution of the final cleaning step, upon contact with tableware, on which acidic solution was applied, inevitably neutralises at least partially and removes acidic solution and soil from the tableware. As the final rinse according to Claim 9 follows the 3-step

cleaning according to Claim 2, D4 discloses application of the acidic solution before the final rinse.

- 3.1.5 As convincingly argued by the respondent, this construction of Claims 1, 2 and 9 is the only sensible interpretation which can be gathered from the whole general disclosure of D4 (page 4, second full paragraph, last sentence, which follows the acknowledgement of D5 on page 3; or page 6, last paragraph, last sentence).
- 3.1.6 It follows from the foregoing that the process defined in Claims 1, 2 and 9 of D4 constitutes a direct and unambiguous disclosure of a process according to Claim 1 as granted.
- 3.2 Since the subject-matter of Claim 1 as granted lacks novelty, a ground of opposition under Article 100(a) EPC 1973 prejudices maintenance of the granted patent.

First Auxiliary Request

Admissibility

4. The new first auxiliary claim request was filed with the letter of 11 April 2013, i.e. less than two months before oral proceedings, in reaction to the Board's communication in preparation for oral proceedings. It addresses the objections under Article 84 EPC 1973 and Article 123(2) EPC raised therein.
- 4.1 Compared to the first auxiliary request previously on file, it contains the amendments necessary to overcome the said objections and does not raise new issues of particular complexity. The respondent did not object to

the late filing of the new first auxiliary request and could deal with it during the oral proceedings.

- 4.2 Therefore, the Board admitted the first auxiliary request to the proceedings despite its late filing (Article 13(1) and (3) RPBA).

Amendments

5. Compared to Claim 1 as granted, Claim 1 of the first auxiliary request contains the amendments specified in Point V., second paragraph, *supra*, in particular:
- (a) deletion of the co-ordinating conjunction "or" (and hence of the alternatives thereby connected, i.e. "the alkaline treatment taking place before or after the acidic treatment") and of the expression "at least one" (in both the penultimate feature and the penultimate line of Claim 1 as granted); and,
 - (b) addition, at the end of Claim 1 as granted, of the feature "and the pH of the wastewater produced by the process being below 12".
- 5.1 The deletion of the conjunction "or" removes two alternatives initially defined as such in Claim 1 (i.e. alkaline treatment only before or only after acidic treatment). The deletion of the expression "at least one" merely takes into account that two alkaline treatments are now required by the sole remaining conjunction "and".
- 5.2 The additional feature relating to the pH of the wastewater inserted in Claim 1 finds a basis in Claim 18 of the application as filed. It was defined in Claim 17 as granted.

- 5.3 Thus, Claim 1 of the first auxiliary request complies with Article 123(2) EPC, and, considering its restriction in scope, also with Article 123(3) EPC.
- 5.4 Also the deletion of granted Claims 2, 14 and 15, as well as the amendments in remaining Claims 12, 13 and 14, are consequential adaptations to the deletion of "or".
- 5.5 For the Board, the expression "the alkaline treatment" (in the definition of the 3-step cleaning "... taking place before and after ...") encompasses but does not necessarily mean "the same alkaline treatment", as alleged by the respondent. This understanding is in line with the whole disclosure of the patent. The definite article "the" can be considered to have been used to specify an alkaline treatment in general, as previously defined in Claim 1 ("in another process step, with an alkaline cleaning solution"). Therefore, no lack of clarity arises from the amendments to Claim 1 (Article 84 EPC 1973).
- 5.6 The amendments aim at overcoming a ground of opposition, i.e. lack of novelty, by restricting the scope of the claims. Hence, they comply with Rule 80 EPC.
- 5.7 Thus, the first auxiliary request is formally allowable.

Novelty

6. Claims 1, 2 and 9 of D4 do not mention any properties of the wastewater produced by the defined process, let alone a pH of less than 12.

6.1 The general description of D4 (paragraph bridging pages 4 and 5) merely discloses that the alkaline solution has a pH greater than 9, preferably greater than 10, and that it is not necessary that the pH be greater than 13 (hence, either $9 < \text{pH} \leq 13$ or $10 < \text{pH} \leq 13$) (paragraph bridging pages 4 and 5). Also, the pH of the acidic solution is less than 5, preferably less than 2 (page 5, second full paragraph). No information concerning the pH of the produced wastewater can be directly and unambiguously derived from these statements.

6.2 The examples of D4 (pages 8 and 9) illustrate four cleaning tests, each carried out on 10 new dishes soiled with a starch-containing contaminant using a standardised test method, i.e. an artificial starch soiling, in a Krefft^(R) single-tank dishwasher. Soiled dishes were comparatively treated in accordance with the following scheme, wherein the compositions of the cleaning solutions a) and d) were retained and only the spraying solutions were varied from test to test:

- (a) Clean for 1 minute using a 0.3 wt.% aqueous solution of a conventional, consistently alkaline cleaning agent (approx. 17 wt.% alkali hydroxide, 14 wt.% tripolyphosphate and 1.5 wt.% alkali hypochlorite as well as approx. 1 wt.% alkali silicate, the remainder being water);
- (b) Cover the surfaces of the plates by spraying, for each test using a different spraying solution, the composition of which is given in more detail in Table 1.
- (c) Allow the applied spraying solution to act for 30 seconds.

(d) Clean for 2 minutes with a solution according to a).

Table 1 of D4 shows a comparison of the cleaning results attained thereby, as follows:

Versuch	Ansprühhösung	Bewertung der Reinigungsleistung
1	1 % NaOH	4,6
2	0,3 g/l Perzym	1,2
3	1 % Methansulfonsäure 70 %	9,5
4	Wasser	1,2

Still according to D4 (page 9, last paragraph), if equivalent quantities of phosphoric acid are used instead of methanesulfonic acid in Run 3, the results of cleaning are equally as good as with methanesulfonic acid.

6.3 Thus, the examples of D4 illustrate the composition of alkaline and acidic solutions. It was not in dispute that their pH could be calculated or measured. The relative quantities of these solutions are, however, not mentioned. There is no evidence on file showing that the skilled person could directly and unambiguously gather the relative amounts of alkaline and acidic solutions from the information given in the examples of D4, such as the number of dishes, the machine used or the fact that the amount of acidic solution sprayed has to cover the dishes and remove the artificial soiling up to the attained score. So no direct and unambiguous conclusion concerning the pH of the wastewater can be drawn from the test runs illustrated in the examples of D4.

6.4 The fact that the description of Run 3 of D4 is similar to that of Example 1 of the patent in suit, which defines in its Claim 17 a pH of the wastewater of less than 12, cannot be taken into account to derive by analogy that Run 3 of the examples of D4 also discloses a pH of the produced wastewater of less than 12. Firstly, Claim 1 as granted does not define the pH of the wastewater, so Example 1 of the patent in suit might fall under Claim 1 but not under Claim 17, as granted. Secondly, during the oral proceedings, the appellant declared that Example 1 of the patent in suit does not fall under Claim 1 of the first auxiliary request.

6.5 Thus, D4 does not directly and unambiguously disclose a process for machine dishwashing comprising all the features of Claim 1 according to the first auxiliary request.

6.6 D4 was the only document cited against the novelty of the process of Claim 1 of the first auxiliary request.

6.7 Therefore, the process of Claim 1 according to the first auxiliary request, and consequently the process defined in the claims dependent thereon, is novel (Articles 52(1) and 54(1)(3) EPC).

Alleged insufficiency of the disclosure

7. The Board (Point 2.5, *supra*) considers that step (b) of Claim 1 does not require removal of acidic solution and soil from the "system" separately from the alkaline solution. At the oral proceedings, the respondent conceded that its ground of insufficiency under

Article 100(b) EPC 1973 would no longer be relevant if this understanding of Claim 1 were adopted (Point IX(m), *supra*). The Board has no reason to take a different position.

Remittal

8. The ground for refusal of the main request and of the first auxiliary request underlying the decision under appeal was lack of novelty over D4. The subject-matter of Claim 1 according to the first auxiliary request before the Board has however been found to be novel over D4.
- 8.1 The issue of inventive step regarding the subject-matter defined in the claims at issue has not sufficiently been dealt with before the Opposition Division, let alone in the decision under appeal.
- 8.2 Considering also that the parties agreed that the remittal of the case was the appropriate course of action, the Board, in the exercise of its discretion under Article 111(1) EPC, has decided to remit the case to the Opposition Division for further prosecution with regard to inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Opposition Division for further prosecution with regard to inventive step on the basis of the first auxiliary request submitted with the letter dated 11 April 2013.

The Registrar:

The Chairman:

K. Boelicke

B. Czech