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**Datasheet for the decision  
of 25 October 2011**

**Case Number:** T 0261/10 - 3.2.07

**Application Number:** 04000430.1

**Publication Number:** 1447343

**IPC:** B65D 65/46

**Language of the proceedings:** EN

**Title of invention:**

Injection moulded water-soluble container

**Patent Proprietor:**

Reckitt Benckiser (UK) Limited

**Opponent:**

Henkel AG & Co. KGaA

**Headword:**

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**Relevant legal provisions:**

EPC Art. 56

**Relevant legal provisions (EPC 1973):**

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**Keyword:**

"Second auxiliary (only remaining) request: inventive step  
(no)"

**Decisions cited:**

T 0267/09

**Catchword:**

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Case Number: T 0261/10 - 3.2.07

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.07  
of 25 October 2011

**Appellant I:** Reckitt Benckiser (UK) Limited  
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**Representative:** Bowers, Craig Malcolm  
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**Appellant II:** Henkel AG & Co. KGaA  
(Opponent) VTP Patente  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
14 December 2009 concerning maintenance of  
European patent No. 1447343 in amended form.

**Composition of the Board:**

**Chairman:** H. Meinders  
**Members:** K. Poalas  
E. Dufrasne

## Summary of Facts and Submissions

- I. The patent proprietor and the opponent lodged each an appeal against the interlocutory decision of the Opposition Division concerning maintenance of the European patent No. 1 447 343 in amended form.
- III. Opposition had been filed against the patent as a whole based on Article 100(a) (lack of inventive step). The Opposition Division found that the subject-matter of claim 1 according to the main request filed with letter dated 21 July 2008 does not involve an inventive step over the combination of the teachings of D6 (WO-A-97/35955) and D7 (EP-A-0 593 952) and that the subject-matter of claim 1 according to the first auxiliary request filed with letter dated 28 September 2009 meets the requirements of the EPC.
- IV. Oral proceedings before the Board took place on 25 October 2011.
- (a) The appellant/patent proprietor withdrew its main and first auxiliary requests, referred to in the statement of grounds of appeal dated 26 March 2010, and requested that the decision under appeal be set aside and that the patent be maintained on the basis of the second auxiliary request filed with letter dated 15 November 2010.
- (b) The appellant/opponent requested that the decision under appeal be set aside and the European patent No. 1 447 343 be revoked.

II. Independent claim 1 according to the second auxiliary request reads as follows:

"A capsule comprising a self-supporting receptacle part (2) and a closure part, the receptacle part (2) and the closure part together enclosing a dishwashing composition, the receptacle part (2) being formed of a water soluble polymer, and the closure part being formed of a water soluble polymer, wherein in use the closure part dissolves before the receptacle part, wherein the receptacle part (2) defines two or more compartments (24,16) which contain different products and wherein the receptacle part (2) comprises an upstanding wall (18,22) which separates compartments thereof".

III. The appellant/patent proprietor argued essentially as follows:

D7 is concerned with a bag comprising a treatment agent which can be released into the washing liquid of a dishwashing machine. D7 represents therefore the closest prior art. D6 is concerned with cleaning concentrates and it does not contain any reference to dishwashing. It is therefore in a remote technical field. The person skilled in the art starting from the bag known from D7 would not be motivated to take the teaching of D6 into consideration. Even if he would have done so, he would not be led to the subject-matter of claim 1.

The purpose of D6 is the provision of a packaged cleaning agent which is dispersed as quickly as possible. This is in contrast to the arrangement in

claim 1 in which the receptacle part of the package is rigid and self-supporting and the closure part is adapted to allow the contents of the package to be dissolved at an appropriate time in a dishwashing machine.

On page 5, lines 16 to 20 of D6 there is reference to the provision of a film made by deep-drawing. It does not refer to an upstanding wall separating the compartments of the capsule as present in claim 1. It is difficult to create a vertical wall in the middle of a depression of a deep-drawn film and this especially when the wall has to be very thin, i.e. 25 µm, see page 14, penultimate paragraph of D6. The reference to cleaning of glass and porcelain in the last paragraph of page 14 of D6 concerns the cleaning of glass facades of buildings and also probably the cleaning of porcelain tiles. It has nothing to do with dishwashing.

IV. The appellant/opponent argued essentially as follows:

The technical field of the patent in suit is the field of packaging chemical compositions, i.e. *inter alia* detergents, which are of hazardous and irritant nature for the human skin and the human respiratory system, see paragraphs [0001] to [0004] of the patent in suit. D6 is concerned with containers containing a cleaning concentrate of hazardous nature for providing an aqueous cleaning solution in cleaning agent storage tanks of cleaning machines, see page 1, first and fourth paragraphs. Furthermore, the reference to cleaning of glass and porcelain in the last paragraph of page 14 of D6 is a hint towards dishwashing. D6 represents thus the closest prior art.

Applying the teaching of D7 concerning the use of two or more dishwashing components within the same dishwashing sequence, see for example D7, claim 2 and page 5, lines 1 to 17, to the container known from D6 the skilled person would provide the receptacle part of said container with two compartments containing different products without exercising any inventive activity. The deep-drawing process can be controlled so that a sufficiently stable intermediate upstanding wall may be produced. The provision of an intermediate wall in a deep-drawn-film-cavity as known from D6 is for the person skilled in the art not associated with any kind of technical obstacles.

Further, this analysis is the same as the one followed by this Board in T 0267/09 of 29 March 2011 (not published in OJ EPO) against the second auxiliary request of the parent application, of a subject-matter more specific than in the present case and must therefore lead to the same conclusion of lack of inventive step.

## **Reasons for the Decision**

1. *Claim 1 - Article 56 EPC*
- 1.1 The Board notes that according to paragraph [0014] of the patent in suit the term "capsule" defines a "container". This was not disputed by the appellant/patent proprietor.

- 1.2 The combination of claims 7 and 8 of D6 defines a container ("Umhüllung") comprising a self-supporting receptacle part ("formstabile Folie mit einer Vertiefung") and a closure part ("Deckelfolie"), the receptacle part and the closure part together enclosing a cleaning concentrate used for producing usable aqueous cleaning solutions in cleaning agent storage tanks of cleaning machines, the receptacle part and the closure part being formed of a water-soluble polymer ("wasserlöslichem PVA").
- 1.3 Thus, the capsule according to claim 1 differs from the container known from D6 in that
- a) a dishwashing composition is enclosed in the capsule,
  - b) in use, the closure part dissolves before the receptacle part,
  - c) the receptacle part of the capsule contains two or more compartments which contain different products, and
  - d) the receptacle part comprises an upstanding wall which separates compartments of the capsule.
- 1.4 The problem to be solved by the feature a) is to adapt the container known from D6 so that it is appropriate for dishwashing.

As it is stated under point 1.2 above the cleaning concentrate within the container known from D6 is used for producing usable aqueous cleaning solutions in cleaning agent storage tanks of cleaning machines. Although there exists no explicit mentioning of dishwashing in D6 the Board considers that the reference to the cleaning of both glass and porcelain in the last paragraph of page 14 of D6 makes the cleaning of tableware implicit, i.e. it hints at

dishwashing. The Board sees no reason to follow in this respect the appellant/patent proprietor's argument that the reference to porcelain in the above mentioned paragraph refers to the cleaning of porcelain tiles and not of porcelain tableware. D6 does not support such an interpretation of this paragraph. Therefore, the Board concludes that the provision of the container known from D6 with a dishwashing composition does not require from the person skilled in the art to exercise an inventive activity.

- 1.5 The problem to be solved by feature b) is a different one, namely to find an appropriate dissolution profile for the water-soluble container.

In this respect the Board notes that when forming a water-soluble container which is designed to dissolve in water in order to set free its contents, said container consisting of a receptacle part and a closure part, the skilled person has only the following three, non-inventive options concerning the dissolving sequence of the different parts of the container. The closure part dissolves before the receptacle part (feature b)), the receptacle part dissolves before the closure part, or both parts dissolve at the same time. Claim 1 gives preference to the first one of these three possibilities, whereby said possibility, however, does not provide any surprising technical effect over the other two. Presence of a surprising technical effect was also not argued by the appellant/patent proprietor.

Thus, feature b) is to be considered as an arbitrary selection out of three equivalent, non-inventive

possibilities which the skilled person would obviously try out depending on the circumstances of use. In any case, since it is the receptacle part which has to be self-supporting providing thereby the container's stability, it is obvious to the skilled person that the closure part does not need to be as thick as the walls of the receptacle part and that therefore the closure part, being thinner than the walls of the receptacle part, would evidently be the container's part which dissolves first.

- 1.6 The problem to be solved by the feature c) is yet a different one, to adapt the container known from D6 so that it is capable for enclosing and releasing in use at least two different (dishwashing) components.

It is well known to the person skilled in the art that often two or more dishwashing components have to be used in one and the same dishwashing sequence. For this purpose D7 proposes the use of a container in the form of a water-soluble pouch having two different compartments which contain different products, see claim 2 and page 5, lines 1 to 17 of D7. Applying this teaching of D7 to the self-supporting blister-pack type depressions used as receptacle parts in D6 brings with it that each depression would be separated into two parts providing thereby two different compartments capable of containing different dishwashing products. The Board concludes therefore from the above that the person skilled in the art seeking to solve the problem mentioned above would apply the above-mentioned teaching of D7 to the container known from D6 and would arrive at a capsule having a receptacle part with two compartments without exercising any inventive activity.

1.7 As it is stated above the provision of the container known from D6 with a receptacle part comprising two compartments does not involve an inventive step. The question at stake concerning feature d) is therefore whether the fact that this separation is made by an upstanding wall involves an inventive step.

The two main options for dividing a receptacle into two compartments is either via a vertical wall or via a horizontal wall. Given the fact that the receptacle part known from D6 is made by deep-drawing a film into a depression which is then filled with the detergent composition from above (as is normal), it is obvious to the person skilled in the art that when separating the receptacle part into two compartments this has to be done via a vertical wall in order not to obstruct or render impossible the filling of said compartments from above. This does not demand from the person skilled in the art to exercise an inventive activity.

1.8 As the claim comprises the aggregation of the individual features a), b), c) and d), each of which solving an individual partial problem, their provision does not demand from the person skilled in the art the exercise of an inventive activity.

1.9 The appellant/patent proprietor argued that:

i) D6 relates to packaged treatment agents for adding to cleaning agent storage tanks of cleaning machines. Dishwashing machines do not contain cleaning agent storage tanks; the cleaning agent is simply released into the wash. In D6, in order to achieve a quick dissolution of the cleaning concentrate into the stored

solution, an effervescent agent is included with the cleaning agent to ensure quick dispersal of the concentrate as soon as the water-soluble film starts to dissolve. Such an arrangement is not appropriate for use in a dishwashing machine where there may be an initial cycle in which it is not desired that any or the entire cleaning agent be released. Consequently, D6 is in a technical field remote from the field of the present invention and it cannot be seen as representing the closest prior art.

ii) combining the teachings of D6 and D7 is not something which the person skilled in the art would do because their respective technical areas are remote.

iii) claim 7 of D6 refers to a deep-drawn, preferably dimensionally stable film. However, the deep-drawing has to be carried out on a relatively thin film, 25  $\mu\text{m}$  thick according to the fourth paragraph on page 14 of D6, to ensure the container is water-soluble and to ensure that the film can shrink around the concentrate. Clearly in this instance, therefore, the deep drawn film simply needs to be dimensionally stable in the mould where it can be filled; there is no implication that it is rigid.

1.10 The Board cannot follow the above-mentioned arguments of the appellant/patent proprietor for the following reasons:

i) According to the case law of the Boards of Appeal a document serving as the starting point for evaluating the inventive merits of an invention should relate to the same or a similar technical problem or, at least,

to the same or a closely related technical field as the patent in suit, see Case Law of the Boards of Appeal of the EPO, 6th edition, 2010, I.D.3.3.

In paragraph [0001] of the patent in suit it is mentioned that the present invention relates to containers which may be utilised for the delivery into an aqueous environment of substances such as **detergents**, pesticides, biocides, deodorants, dyes and pigments, and water-treatment chemicals. The majority of said substances has as common characteristic that they are of hazardous and irritant nature for the human skin and the human respiratory system, see paragraphs [0002], [0003] and [0004] of the patent in suit. Dishwashing compositions as present in claim 1 are such irritant detergents.

Accordingly, the Board concurs with the argument of the appellant/opponent that the technical field of the patent in suit is the field of packaging such substances. The fact that claim 1 has been restricted only during the opposition/appeal-proceedings to the packaging of dishwashing compositions does not mean that the claimed packaging now is excluded from the above mentioned general technical field of packaging chemical compositions of hazardous nature for the human skin and respiratory system.

D6 is concerned with containers containing a cleaning concentrate for use in providing an aqueous cleaning solution in cleaning agent storage tanks of cleaning machines, see page 1, first paragraph. These cleaning concentrates are of hazardous nature, see page 1, fourth paragraph. The object of D6 is to provide a

packaged cleaning concentrate which is stable enough for being stored, see page 1, last paragraph. Furthermore, the Board sees, see point 1.4 above, in the mentioning on page 14, last paragraph of D6 already a hint towards dishwashing.

The Board considers that the dishwashing machine may be seen as a cleaning agent storage tank when it is filled with the dishwashing composition.

The Board further notes that quick dissolution of the cleaning agent is also very important in dishwashing processes, whereby this is desirable at the beginning of the cleaning process. Only in special dishwashing applications, to which no reference exists in claim 1, delayed dissolution is required. Therefore the Board cannot follow the appellant/patent proprietor's argument concerning the difference in the rate of dissolution of the cleaning agent between a dishwashing process and the cleaning process according to D6. Moreover, claim 1 defines only that the closure part dissolves before the receptacle part. How fast the closure part dissolves when coming into contact with water is not mentioned in claim 1.

Accordingly, the Board considers that D6 represents the closest prior art.

The appellant/patent proprietor's submission that the most relevant, and therefore closest prior art to assess the inventive step is the container known from D7 must also be rejected. The Board considers that inventive step should be present over any feasible prior art, as it is the case with D6.

ii) as stated under point i) above D6 belongs to the same technical field as the present invention. It is undisputed that D7 is directed to dishwashing compositions, so belongs to the same technical field as the present invention. Accordingly, the teachings of D6 and D7 can be combined by the person skilled in the art.

iii) the specific film thickness of 25  $\mu\text{m}$  the appellant/patent proprietor refers to concerns a specific example described in the fourth paragraph on page 14 of D6. According to this example the film has to shrink around the cleaning concentrate. Claim 7 of D6 is a dependent claim referring back to claims 1 to 4 but without any reference to claim 6, said last mentioning the shrinking of the film. Therefore, in the embodiment according to claim 7 no shrinking is required. Moreover, claim 7 of D6 explicitly defines that the deep-drawn film, due to the fact that it is dimensionally stable, forms a recess as the receptacle part for receiving the cleaning agent. This means that the film is already stable before it is filled with the cleaning agent and therefore self-supporting.

No evidence was presented by the appellant/patent proprietor to support its allegation that it is difficult to provide in a deep-drawn-film an additional intermediate wall within its cavity, since due to the deep-drawing such an intermediate wall would be thinner than the side walls. The Board considers therefore this allegation unsubstantiated so that it does not need to be taken into consideration for the assessment of inventive step. The Board does not see insurmountable

technical obstacles in the production of such an intermediate wall. Furthermore, there is no reference in claim 1 to any wall thickness, so that also the appellant/patent proprietor's argument concerning the production of a too thin intermediate wall is not relevant for the present claim.

- 1.11 For the above-mentioned reasons, the subject-matter of claim 1 according to the second auxiliary request does not involve an inventive step as required by Article 56 EPC.

## **Order**

### **For these reasons it is decided that:**

1. The appeal of the patent proprietor is dismissed.
2. The decision under appeal is set aside.
3. The patent is revoked.

The Registrar:

The Chairman:

G. Nachtigall

H. Meinders