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Datasheet for the decision of 14 December 2007

Case Number: T 1778/06 - 3.3.06

Application Number: 01927303.6

Publication Number: 1276836

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Language of the proceedings: EN

Title of invention:
Spherical compacted unit dose softener

Applicant:
Colgate-Palmolive Company

Opponent:
-

Headword:
Spherical unit dose/COLGATE-PALMOLIVE

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step (no): obvious alternative deriving from the teaching of the closest prior art"

Decisions cited:
-

Catchword:
-

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Case Number: T 1778/06 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 14 December 2007

Appellant: Colgate-Palmolive Company
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 5 July 2006 refusing European application No. 01927303.6 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: P.-P. Bracke
Members: L. Li Voti
U. Tronser

Summary of Facts and Submissions

I. This appeal lies from the decision of the Examining Division to refuse European patent application no. 01 927 303.6, relating to a spherical compacted unit dose softener.

II. In its decision, the Examining Division, referring to document

(1): WO-A-99/40171,

found, *inter alia*, that

- the technical problem underlying the invention regarded the drawback occurring in front loading washing machines by using flat unit dose laundry tablets which remained trapped in the rubber gasket and, consequently, did only poorly dissolve during washing;

- the closest prior art was represented by document (1), disclosing a cylindrical detergent tablet differing from the claimed subject-matter only insofar as the shape of the unit dose was not spherical;

- example 2 of the present application, which tested a spherical unit dose as claimed and a tablet under specific conditions could not be considered to be a comparison with the cylindrical tablets of document (1);

- since the stability of a sphere on a surface was necessarily lower than that of a parallelepiped, the use of a spherical form was an obvious alternative for

the skilled man facing the aforementioned technical problem;

- therefore, the claimed subject-matter did not involve an inventive step.

III. An appeal was filed against this decision by the Applicant (Appellant).

The Board submitted its preliminary opinion in a communication dated 1 February 2007 and cited, additionally, document

(4): DE-A-2007413.

Moreover, the Board cited the following document in the annex to the summons to oral proceedings:

(5): EP-A-0 576 234.

The Appellant submitted with letter of 21 November 2007 amended sets of claims according to the main request and to the auxiliary request.

Oral proceedings were held on 14 December 2007.

The Appellant withdrew during oral proceedings the auxiliary request submitted previously and replaced it with a new set of amended claims.

IV. Claim 1 according to the main request reads as follows:

"1. A unit dose laundry composition for softening or conditioning fabrics which is suitable as an additive

to the wash cycle of an automatic washing machine, said unit dose composition comprising a compacted granular composition comprising a fabric softener clay in combination with an organic fatty softening material, said unit dose laundry composition being a unit dose fabric softening composition which is a compacted granular composition having a spherical shape and having no discrete outer layer surrounding said fabric softener or conditioner, which outer layer is comprised of an alkaline material such that the pH of the wash water is increased upon the dissolution of said outer layer in said wash water, and wherein the spherical unit dose has a diameter of from 20 mm to 60 mm."

Dependent claims 2 to 7 relate to particular embodiments of the product of claim 1 and claims 8 and 9 relate to a process for softening or conditioning laundry by using the unit dose composition of claim 1.

Claim 1 according to the auxiliary request differs from that according to the main request only insofar as the spherical unit dose is required to have a **diameter of from 20 mm to 40 mm**.

V. The Board submitted in writing *inter alia* that

- the technical problem underlying the present invention appeared to be defined as the provision of an economical unit dose tablet capable of providing conditioning of fabrics during washing, which tablet did not remain trapped in the rubber seal surrounding the window of a front loading washing machine upon use and retained its physical integrity during normal

handling prior to being introduced into the washing machine;

- it had been known in the prior art that flat tablets, when introduced into the wash cycle of a front loading washing machine, became often trapped within a few minutes in the rubber seal surrounding the window;

- as mentioned in the present application and in document (5), this problem had been dealt with in the prior art, for example, by providing a net designed to contain the tablet;

- document (5) appeared to represent a more reasonable starting point than document (1) for the evaluation of inventive step of the claimed subject-matter;

- document (5) appeared to suggest that both the rigidity and the volume of the object used were important for avoiding the lodging of the tablet into the rubber seal.

VI. The Appellant argued in writing and orally *inter alia* that

- example 2 of the application showed that both a spherical unit dose as claimed and a flat compacted tablet as used in document (1) became trapped in the rubber gasket of a front loading washing machine during washing but only the spherical unit was able to readily disengage itself whereas the flat tablet remained trapped;

- the technical problem addressed in the present application thus had been successfully solved;

- moreover, document (1) suggested the use of tablets having uniform cross-section and thus taught away from using articles having a spherical form;

- document (5) did not suggest to modify the form of a flat tablet but to use a sleeve or a net to be wrapped around it;

- the effect shown in the present application was due to the type of shape selected and amounted to a more elegant and simpler solution to the underlying technical problem than the means used in the prior art;

- moreover, whilst the prior art disclosed in document (5) suggested to use an article having such a volume that could not be trapped in the rubber gasket of the washing machine, the present invention relied on the finding that the selection of a spherical form of the selected size permitted the use of an article that, differently from the prior art, was initially entrapped in such a rubber gasket but it was surprisingly able to disengage itself, as shown in example 2 of the application;

- furthermore, the rubber seal in the gasket of a washing machine would deform at least partially against the contour of the unit dose and it would not be possible to predict if a sphere or a parallelepiped would be more stable on such a surface;

- therefore, it was not obvious to select a spherical form of the size chosen in the present claims in the expectation of solving the underlying technical problem.

VII. The Appellant requests that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main request submitted with letter of 21 November 2007 or, in the alternative, on the basis of the claims according to the auxiliary request submitted during oral proceedings.

Reasons for the Decision

1. *Main request*

1.1 Articles 54, 84 and 123(2) EPC

The Board is satisfied that the claims according to the main request comply with the requirements of Articles 54, 84 and 123(2) EPC.

Since the appeal fails on other grounds no further details are necessary.

1.2 Inventive step

1.2.1 The present invention regards a wash cycle unit dose laundry composition for softening or conditioning fabrics (see page 1, lines 7 to 8, reference being made to the international published application WO 01/81521).

As explained in the application wash cycle tablet unit doses are typically flat compacted unit compositions

(page 1, lines 34 to 35). However, when such a flat unit dose tablet is introduced into the wash cycle of a front loading washing machine, it remains trapped within a few minutes in the rubber gasket of the washing machine and, consequently, dissolves only poorly during washing (page 2, lines 6 to 10).

The prior art had offered different approaches to the solution of this technical problem, such as the use of a net or a sachet designed to contain the tablet unit dose or the use of disintegrating agents for providing a rapidly dispersible tablet (page 2, lines 11 to 14).

However, these solutions were considered uneconomical or resulted in an unduly fragile tablet (page 2, lines 14 to 16).

The technical problem underlying the invention thus is defined in the application as the provision of an economical unit dose laundry composition for softening or conditioning fabrics, which tablet does not remain trapped in the rubber gasket of a front loading washing machine upon use and retains its physical integrity during normal handling prior to being introduced into the washing machine (page 2, lines 8 to 10 and 16 to 19).

1.2.2 The most suitable starting point for assessing inventive step is, according to the jurisprudence of the Boards of Appeal of the EPO, a document (if available) conceived for the same purpose or aiming at the same objectives as the claimed invention and having the most relevant technical features in common (see

Case Law of the Boards of Appeal of the EPO, 5th edition, 2006, point I.D.3.1).

Document (1) does not mention at all the technical problem addressed in the present application.

On the other hand, the description of the present application suggests that the technical problem addressed in the application was already known to the skilled person and that there have been already successful attempts for resolving this problem by using, for example, a net or a sachet to be wrapped around a unit dose tablet.

This state of the art is represented, e.g., by document (5) (see page 2, lines 39 to 45).

Therefore, the Board takes document (5) as the most reasonable starting point for the evaluation of inventive step.

1.2.3 The article disclosed in document (5) differs from the subject-matter of claim 1 according to the main request insofar as it does not comprise a unit dose in spherical form having a diameter of 20 to 60 mm but only a flat cylindrical tablet and, although comprising a conditioning composition, does not comprise a softening composition comprising a clay softener in combination with a fatty organic softener (see page 4, lines 6 to 8, 15 and 20 to 21; page 4, line 44 to page 5, line 21; figure 2).

1.2.4 As not disputed by the Appellant, the softening composition of claim 1 was already known in the prior

art and was not relevant for the solution of the technical problem underlying the invention. Therefore, this technical difference can be disregarded in the evaluation of inventive step.

Moreover, document (5) had already provided a unit dose laundry composition for softening or conditioning fabrics, which does not remain trapped in the rubber gasket of a front loading washing machine upon use and retains its physical integrity during normal handling prior to being introduced into the washing machine (page 2, lines 53 to 54; page 3, lines 4 to 15; page 5, line 42).

Therefore, the technical problem underlying the invention can only be defined as the provision of an economical alternative way for avoiding that a unit dose laundry composition for softening or conditioning fabrics becomes trapped in the gasket of a front loading washing machine during washing.

The Board notes that example 2 of the application shows that a spherical unit dose having a diameter of 44 mm and not containing a net wrapped around it, becomes initially entrapped in the rubber gasket of a front loading washing machine during washing but it is always able to readily disengage itself and therefore does not remain trapped during washing (page 9, lines 4 to 21).

The Board thus is satisfied that the claimed subject-matter solves the above mentioned technical problem.

1.2.5 Document (5) teaches that the known problem of lodging of flat unit dose tablets in the rubber gasket of front

loading washing machines can be overcome by wrapping the tablet in a sleeve of elastic material, which when stretched conforms tightly to the tablet and have holes sufficiently large to allow water flow theretrough (page 3, lines 4 to 6). When this sleeve of elastic material contains only one tablet, then it must have a degree of rigidity sufficient to stop the device lodging in the gasket of the washing machine (page 3, lines 7 to 8). However, when two or more tablets are wrapped into the sleeve, such a degree of rigidity is not necessary since the sleeve hold the tablets stacked together to produce a rigid object sufficiently large to prevent lodging (page 3, lines 10 to 12).

The Board notes that in the latter case the diameter of the object is the same as the diameter of a flat tablet, which is preferably in the range of 35 to 55 mm (see page 3, lines 29 to 31), and the object is approximately so large as the sum of the heights of the tablets.

Therefore, in the Board's view, the skilled person would have also learnt from the teaching of document (5) that a unit dose having a diameter similar to that of a flat tablet but being so large as the height of at least two flat tablets would be an article having dimensions, which prevent it from lodging.

Consequently, the skilled person, faced with the technical problem of finding an economical alternative way for avoiding that a unit dose laundry composition for softening or conditioning fabrics becomes trapped in the rubber gasket of a front loading washing machine during washing, following the teaching of document (5),

would have tried as alternative a unit dose not wrapped in a sleeve but having dimensions as indicated above.

Moreover, since it was known to the skilled person that compacted detergent articles and unit doses could be shaped not only as flat tablets but also as spheres (see e.g. document (4), claim 1, figure 1, page 2 (upper numbering), lines 27 to 30), it would have been obvious to the skilled person that the spherical shape, having dimensions equal in all directions, would be suitable for providing an article having in all directions the dimension of the diameter of a flat tablet and complying with the above teaching of document (5).

The skilled person would thus have had no reason for selecting only a unit dose having a uniform cross-section as suggested for other reasons (ease of packaging) in document (1) (page 26, lines 15 to 18).

The Board concludes that it would have been obvious for the skilled person to try a unit dose in the form of a sphere having a diameter of, for example, 35 mm (one of the preferred diameter of a flat tablet used in document (5)), as alternative to the use of the sleeve described in document (5), in the expectation of providing an article not remaining trapped in the rubber gasket of a front loading washing machine during washing.

1.2.6 The Appellant alleged that the teaching of document (5) did not relate to the same effect as that shown in the present application, since the dimensions indicated in document (5) prevented the article from lodging whilst

the article of the present application in the form of a sphere, as shown in example 2, would be initially trapped in the rubber gasket but it would be able to disengage itself.

However, the Appellant's statement amounts, in the Board's view, to an explanation of the behaviour of the claimed article and of the effect obtained by its use, which effect is, however, identical to that described in document (5), since, both in the present application and in document (5), the article does not remain trapped in the rubber gasket of the washing machine during washing.

Therefore, this particular behaviour, even if unexpected, cannot support the inventiveness of a subject-matter which, as explained in point 1.2.5 above, is already to be considered as lacking an inventive step in the light of the teaching of the prior art.

For the same reasons, any consideration as to the stability of a sphere or of a parallelepiped on the surface of the rubber gasket is not relevant for the evaluation of inventive step.

The Board thus concludes that the subject-matter of claim 1 lacks an inventive step.

2. *Auxiliary request*

Claim 1 according to the auxiliary request differs from that according to the main request only insofar as the spherical unit dose is required to have a **diameter of from 20 mm to 40 mm**.

Since, the skilled person, as put forward in point 1.2.5 above, by following the teaching of document (5), would have tried a unit dose in the form of a sphere having a diameter of, for example, 35 mm, the subject-matter of claim 1 according to the auxiliary request lacks *mutatis mutandis* an inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Rauh P.-P. Bracke