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**D E C I S I O N**  
**of 26 September 2002**

**Case Number:** T 0051/99 - 3.3.2

**Application Number:** 89311853.9

**Publication Number:** 0407672

**IPC:** A01N 35/02

**Language of the proceedings:** EN

**Title of invention:**

Odourless mycobactericidal compositions

**Patentee:**

WAVE ENERGY SYSTEMS, INC.

**Opponent:**

Henkel Kommanditgesellschaft auf Aktien

**Headword:**

Mycobactericide/WAVE ENERGY SYSTEMS

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

"Inventive step: no - obvious combination"

**Decisions cited:**

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**Catchword:**

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Case Number: T 0051/99 - 3.3.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.2**  
**of 26 September 2002**

**Appellant:** WAVE ENERGY SYSTEMS, INC.  
(Proprietor of the patent) One Riverway  
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Texas 77056 (US)

**Representative:** McCall, John Douglas  
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**Respondent:** Henkel  
(Opponent) Kommanditgesellschaft auf Aktien  
TTP / Patentabteilung  
D-40191 Düsseldorf (DE)

**Representative:** -

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 11 November 1998  
revoking European patent No. 0 407 672 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** P. A. M. Lançon  
**Members:** J. Riolo  
C. Rennie-Smith

## Summary of Facts and Submissions

I. European Patent No. 0 407 672 based on application No. 89 311 853.9 was granted on the basis of 10 claims.

Independent claim 1 as granted for all designated Contracting States reads as follows:

"The use of a phenol-free liquid composition comprising:

(a) a solvent consisting of water or a lower alkanol;

(b) between about 0.1 to about 16% by weight of a dialdehyde containing from 2 to about 6 carbon atoms;

(c) an odor-reducing agent selected from the group consisting of ethylene glycol, propylene glycol, diethylene glycol, triethylene glycol, polyethylene glycol, polypropylene glycol, and mixtures thereof;

(d) between about 0.02 to about 10 percent by weight of an anionic surfactant having a negatively-charged hydrophilic moiety selected from the group consisting of alkyl sulfates, alkyl sulfonates, alcohol sulfates, alkyl aryl sulfonates, dialkyl sulfosuccinates, and mixtures thereof; and

(e) buffer salts in sufficient amounts to stabilize the pH of the solution inside the range of from about 5.9 to 7.4

wherein the glycol compounds are present in a ratio of 0.1 to 2.0 as compared to the dialdehyde for destroying mycobacteria on an animate or inanimate surface the destruction of mycobacteria on

the animate surface being for the purpose of skin cleansing."

- II. Opposition was filed against the granted patent by the respondent. The patent was opposed under Article 100(b) EPC for lack of inventive step.

The following documents were cited *inter alia* during the proceedings before the Opposition Division:

(1a) Sales brochure of Sekucid®

(1b) Declaration of Mr Pinoteau

(2) EP-A-46375

- III. By its decision pronounced on 27 October 1998, the Opposition Division revoked the patent under Article 102(1)EPC for lack of inventive step.

The Opposition Division considered the disclosed use of the product Sekucid® according to document (1a) as mycobactericide, which product is described in document (1b) as containing glutaraldehyde, sodium alkyl benzene sulfonate, isopropanol, buffering agents, some other adjuvants and water within the ranges and at a pH as set out in claim 1 of the patent in suit, as the closest state of the art.

The basic difference between the product Sekucid® and the subject of the patent in suit was seen in the presence in the mycobactericidal composition of an odour-reducing agent selected from a limited list of glycols.

The technical problem underlying the subject-matter of the patent in suit was therefore seen as providing compositions having reduced odour to be used as mycobactericide.

Since, as acknowledged in the contested patent itself (page 3, lines 5 and 6) and as illustrated by the disclosure in document (2) (page 2, lines 29 to 35), it was well-known that the odour of dialdehyde solutions could be reduced by using glycols similar to those mentioned in claim 1 of the patent in suit in disinfectant compositions, the Opposition Division concluded that it would have been obvious to the skilled person to combine the beneficial odour-reducing properties of glycols with the known commercial formulation of Sekucid® in order to solve the above mentioned technical problem.

- IV. The appellant (patentee) lodged an appeal against the said decision.
  
- V. In its letter dated 20 August 2002, the appellant confirmed that, as indicated in its previous letter of 27 March 2000, it did not intend to attend the oral proceedings. It further mentioned that it would rely on the written submissions of the parties.
  
- VI. By a communication dated 6 September 2002, the Board informed the parties that, after having reconsidered the case and having regard to the confirmation by the patentee that it would not attend the oral proceedings and that it would rely on the written submissions of the parties, it was of the opinion that the oral proceedings could be dispensed with.

Accordingly, the oral proceedings were cancelled.

- VII. The appellant argued that documents (1a) and (1b) should have been disregarded in view of their conflicting information.

In fact, according to document (1a) the composition of Sekucid® contained 2% glutaraldehyde and nonionic surfactants whereas document (1b) did not mention the nonionic surfactants and disclosed an amount of 2,2% of glutaraldehyde.

It further pointed out that the pH value given in both (1a) and (1b) was 6,0 +/- 0.5 whereas claim 1 of the patent required a pH between 5.9 to 7.4.

As regards document (2), it argued that the skilled person, in looking to reduce the odour of a mycobactericidal would not have looked at this document for the solution as it was directed to sporicide.

It added that, even if the skilled man was to look at this document for a solution to the odour problem, he would be discouraged from the solution of the contested patent because the document indicated that some particular glycols were disadvantageous (page 3, lines 1 to 6).

Finally, it maintained that the patent in suit disclosed a specific glycol/aldehyde ratio for which an optimal killing time could be achieved, which could not be derived from the disclosure in (2).

- VIII. The respondent (opponent) submitted that all the points raised by the appellant had already been dealt with

correctly by the Opposition Division. Since, in its opinion, no new aspects had been put forward by the appellant, it argued that the appeal should be dismissed.

- IX. The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted.

The respondent requested that the appeal be dismissed.

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Article 52(4) EPC*

As is apparent from the notice of opposition, Article 52(4) EPC was not a ground of opposition. Neither did the Opposition Division raise any objection with respect to this Article.

The Board expresses however its view that the use claim 1 as drafted may encompass a method of treatment excluded under Article 52(4) EPC since it requires the destruction of mycobacteria, ie pathogenic bacteria, on an animate surface which would amount to a prophylactic treatment.

However, having regard to the Board's conclusions with respect to the assessment of inventive step, the Board sees no reason to discuss this point further.

3. *Inventive step*

The Board considers that the Opposition Division's decision with respect to the assessment of inventive step holds good and concludes therefore that the claimed subject-matter of the patent in suit lacks inventive step.

As to the discrepancy between documents (1a) and (1b), the Board notes that both glutaraldehyde concentrations, which are very close (ie 2% and 2,2%), are in fact covered by the broad glutaraldehyde range given in claim 1 of the contested patent. Moreover, it is not surprising that the value given in document (1b), which is the result of a precise chemical analysis of the product Sekucid®, is slightly different from the indicative value mentioned in a sales brochure.

Concerning the mention of the nonionic surfactants, it appears from the Opposition Division's decision (page 5, lines 3 to 6) that these surfactants were in fact included in the "0.013 other adjuvants" listed in the analysis of Sekucid® according to document (1b). In the absence of any element to the contrary, the Board has no reason to doubt that this information removes the other discrepancy.

Finally the Board observes that the pH range given for the product Sekucid® greatly overlaps with the claimed range.

Thus, the Board sees no reason to disregard documents (1a) and (1b).

With respect to document (2), the Board agrees with the appellant that there is no direct relationship between



the resistance of spores and that of mycobacteria to chemical disinfectants. However, as the underlying object of the invention is, as stated in the Opposition's Division's decision, to reduce odour of the compositions, the skilled person would not have been deterred by this and would certainly have looked at other documents concerning dialdehyde-containing disinfectant compositions in general, to see how such problems had been solved.

Nor can the appellant's argument relating to the exclusion of specific glycols in document (2) be accepted as it appears that the specific and preferred glycols disclosed in document (2) (page 7, lines 13 to 22) overlap with those claimed in the contested patent.

Finally, the Board also considers that the ratio of glycol to aldehyde cannot provide an inventive step as the exact proportions of the components required to provide optimum effects can be determined by the skilled person by experiment, and therefore constitute routine optimisation of the compositions. Moreover, it is noted that the claimed ratio overlaps with the broad ratio disclosed in document (2) (page 6, lines 28 to 33 in combination with page 7, lines 23 to 28).

Under these circumstances, the Board concludes that the subject-matter of the set of claims as granted does not involve an inventive step as required by Article 56 EPC.

## **Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

A. Townend

P. A. M. Lançon