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D E C I S I O N
of 27 June 1995

Case Number: T 0596/92 - 3.3.1

Application Number: 89311475.1

Publication Number: 0368593

IPC: C10M 161/00

Language of the proceedings: EN

Title of invention:
Controlling fungal or bacterial growth in synthetic metalworking fluids

Applicant:
BUCKMAN LABORATORIES INTERNATIONAL, INC.

Opponent:
-

Headword:
Metalworking fluids preservation/BUCKMAN

Relevant legal provisions:
EPC Art. 52(1), 56
EPC R. 71(2)

Keyword:
"Inventive step (no) - objections not overcome"
"Oral proceedings - absence of the Appellant"

Decisions cited:
-

Catchword:
-

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Case Number: T 0596/92 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 27 June 1995

Appellant: BUCKMAN LABORTORIES INTERNATIONAL, INC.
1256 North McLean Boulevard
P.O. Box 8305
Memphis
Tennessee 38108-0305 (US)

Representative: Watkins, Arnold Jack
European Patent Attorney
Frank B. Dehn & Co.
Imperial House
15-19 Kingsway
London WC2B 6UZ (GB)

Decision under appeal: **Decision of the Examining Division of the European Patent Office dated 18 February 1992 refusing European patent application No. 89 311 475.1 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: A. J. Nuss
Members: P. Krasa
R. E. Teschemacher

Summary of Facts and Submissions

I. European patent application 89 311 475.1 was refused by a decision of the Examining Division for the reason that the subject-matter of the claims filed with letter dated 21 October 1991 did not involve an inventive step.

Claims 1 for the contracting states other than Spain was worded as follows:

"A method of controlling fungal or bacterial growth in a synthetic metalworking fluid comprising the addition to said fluid of

(a1) 5-chloro-2-methyl-4-isothiazolin-3-one and

(a2) 2-methyl-4-isothiazolin-3-one and

(b) an ionene polymer

wherein the ratio by weight of the sum of components (a1) and (a2) to compound (b) is from 1:99 to 99:1 and wherein the amounts of the components (a1) and (a2) and component (b) are from 0.1 to 5,000 and from 0.1 to 10,000 parts per million parts of fluid respectively."

Claims 2 to 7 for the designated states other than Spain are dependent claims, and Claim 8 for the designated states other than Spain is a composition claim; Claims 1 to 7 for Spain are identical with the respective claims for the other designated states.

The mixture of the components (a1) and (a2) mentioned in the claims is known as Kathon 886.

II. In its decision, the Examining Division argued that the method of Claims 1 was obvious for a skilled person in view of DE-A-2 930 865 (document (1)) or US-A-4 379 137 (document (2); this citation is a family member of document (1)) disclosing a method of controlling fungal or bacterial growth in aqueous fluids by using the same synergistic combination of active ingredients as suggested in the application in suit.

III. The Appellant lodged an appeal against this decision. He requested that the decision under appeal be set aside and that a patent be granted on the basis of the two sets of claims filed with letter dated 21 October 1991. As an auxiliary request, the Appellant also requested oral proceedings.

He argued that the term "synthetic metal working fluid" was well known in the art, and maintained that the claimed method was, therefore, clearly distinguished from the prior art aqueous media, i.e. those of documents (1) or (2).

Furthermore, the Appellant emphasised that biocidal synergism depends not only on the respective active substances but also on the medium in which they are used. Thus, a skilled person could not have predicted from the teaching of document (1) that a combination of Kathon 886 with an ionene polymer would display a synergistic effect also in synthetic metal working fluids. In support, he referred to test reports filed with letter dated 21 October 1991 demonstrating, according to him, that no antimicrobial synergism was achieved with the active compounds of Claims 1 in a paper pulp substrate and in a shampoo formulation. In addition the Appellant, relying on D.S. Orth et al.

"Synergism of preservative system components: Use of the survival curve slope method ...", J. Soc. Cosmet. Chem. 40 (1989) 347-365 (document (8)), submitted that the synergism of two components can be adversely affected by the presence of very small amounts of additional substances which implies the unpredictability of biocidal synergism. Finally, he insisted that the Examining Division failed to take into account the synergistic, antifungal properties of the combination of active ingredients used according to the application in suit.

IV. The Rapporteur, in a communication dated 27 June 1994 (pursuant to Article 110(2) EPC) indicated essentially

- that DE-A-2 800 739 (document (4)) seemed to be the proper starting point for evaluating the inventive step as it related to the preservation of metalworking fluids, *inter alia* of mineral oil comprising aqueous cooling lubricants (which were then assumed to fall within the term 'synthetic metalworking fluids' in its broadest meaning) with compositions comprising Kathon 886 and trihydroxy-methyl nitromethan and exhibiting an increased bactericidal and fungicidal effect without being skin irritating;

- that in respect to this citation the technical problem to be solved could be defined as providing further bactericidal and fungicidal metalworking cooling lubricants which were not skin irritating;

- that it could be questioned, whether the available evidence was sufficient to make it plausible that the said technical problem was solved by the suggested solution over the whole range of the claims; and

- that even if it could be acknowledged that the above defined technical problem was solved, document (2) could be considered as a strong incentive for a skilled person looking for a solution of the existing technical problem to replace the trihydroxymethyl nitromethan known from document (4) as component (b) by a ionene polymer as disclosed in document (2), thereby rendering obvious the subject-matter of the application in suit.

V. In his written reply of 7 November 1994, the Appellant submitted essentially that the term 'synthetic' metalworking fluids designates cooling lubricants which do not comprise mineral oils and relied on a passage from a textbook (E.S. Nachtman and S. Kalpakjian, Lubricants and Lubrication in Metalworking Operations, Marcel Dekker, Inc., New York and Basel, 1985; document (7)) in support. He further argued that, therefore, the skilled person would not have taken document (4) as the starting point in order to solve the problem but the use of Kathon 886 alone as acknowledged in the application in suit.

VI. In the communication of 18 May 1995 pursuant to Article 11(2) of the Rules of Procedure of the Boards of Appeal, the Board stated that all the issues raised in the first communication (see above section IV) were still to be dealt with and, *inter alia*, pointed out that citation (4) was not limited to mineral oil comprising aqueous cooling lubricants but related also to completely synthetic aqueous cooling lubricants ('vollsynthetische wassergemischte Kühlschmierstoffe').

VII. In a telefax dated 23 June 1995, the Appellant's representative informed the Board that he "would not be attending the oral proceedings appointed for 27 June 1995".

VIII. Oral proceedings took place on 27 June 1995 in the absence of the duly summoned Appellant. At the end of the oral proceedings, the Chairman announced the Board's decision to dismiss the appeal.

Reasons for the Decision

1. The appeal is admissible.

2. The Appellant has had, in accordance with Article 113(1) EPC, an opportunity to present his comments on the inventive step objection raised in the Board's communication of 27 June 1994 and maintained in that of 18 May 1995.

3. On considering the case at the oral proceedings, duly held pursuant Rule 71(2) EPC despite the absence of the Appellant, the Board came to the conclusion that the subject-matter of Claim 1 in both sets of claims lacked any inventive step for the reasons set out in the communication of 27 June 1994.

This conclusion also holds good against the Appellant's additional arguments: The Appellant's argument that the Examining division did not duly consider the anti-fungal effects of the claimed method is not convincing, since Claim 1 reads also on a method where only bacterial growth is controlled. Neither can the reference to the tests with a paper pulp substrate or a shampoo formulation support the Appellant's case, as these

experiments are not state of the art and, therefore, could not have deterred the notional skilled person from trying - with a reasonable expectation of success - the antimicrobial preservation of synthetic metalworking fluids by the combination of active ingredients known from document (2) in particular when taking into account that there is a clear teaching in document (2) that the synergistic aqueous solutions of Kathon 886 and an ionene polymer may comprise a broad range of additional compounds such as alcohols, hardness-stabilizing agents, corrosion inhibitors, pH regulating agents, suitable surfactants, etc. (column 5, lines 2 to 10).

Contrary to the Appellant's allegation, document (8) would not have led away a skilled person from the claimed solution as this citation relates only to distinct compositions comprising methyl paraben and particular polymers or the disodium salt of ethylene diamine tetra acetic acid (page 347, synopsis) and is not concerned with Kathon 886 at all. Furthermore, the Appellant did not give any reasons, nor is the Board aware of any, why the results obtained with the specific biocidal combinations disclosed in document (8) should have a bearing on the effects of the completely different biocidal combinations of document (2). Therefore, the Board concludes that a skilled person who was set the task to solve the existing technical problem would have ignored document (8).

4. It follows that the Appellant's request must fail since the claimed invention does not comply with the requirements of Articles 52(1) and 56 EPC, and that, therefore, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

E. Görgmaier A. Nuss