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File Number: T 914/90 - 3.3.1

Application No.: 88 101 306.4

Publication No.: 0 277 603

Title of invention: Silicon emulsion for cork lubrication and sealing of bottles and other containers of long shelf-life beverages and foodstuffs

Classification: C10M 169/04

DECISION
of 1 September 1992

Applicant: LA TECNOCHIMICA S.A.S. DI UGO MESTRALLET & C.

Headword: Cork lubrication/TECNOCHIMICA

EPC Art. 56

Keyword: "Inventive step (no) - Relevant disclosure in a more general technical field, T 195/84 followed"



Case Number : T 914/90 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 1 September 1992

Appellant : LA TECHNOCHIMICA S.A.S. DI
UGO MESTRALLET & C.
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Decision under appeal : Decision of Examining Division of the European
Patent Office dated 25 June 1990 refusing
European patent application No. 88 101 306.4
pursuant to Article 97(1) EPC.

Composition of the Board :

Chairman : K.J.A. Jahn
Members : R.K. Spangenberg
J-C. Saisset

Summary of Facts and Submissions

- I. The Appellant is the applicant of European patent application No. 88 101 306.4, corresponding to EP-A-0 277 603.
- II. The appeal was filed on 1 August 1990, accompanied by the payment of the appropriate fee, and lies from the decision of the Examining Division of the EPO dated 25 June 1990 refusing the application.
- III. The decision under appeal was based upon Claims 1 to 4 received on 11 April 1990 relating to a lubricant and sealant for corks. The stated ground of refusal was that the claimed composition was not novel and did not involve an inventive step in view of inter alia the following documents:

(1) FR-A-2 108 065

(2) DE-A-3 035 646

(3) Ullmanns Encyclopädie der technischen Chemie, 4th edition, Vol. 21, page 521

The Examining Division considered that Claim 1 related to a thickened silicone emulsion which was only distinguished from that disclosed in document (1) by the intended use, which did not imply a different composition of that emulsion. Hence the claimed subject-matter lacked novelty. Moreover, the intended use was obvious in the light of the disclosure in document (2). In addition, objections against the clarity of the claims were raised.

- IV. Together with the statement of grounds of appeal received on 19 October 1990 the Appellant submitted new Claims 1

and 2. He argued that the reworded claims were no longer open to objection under Art. 84 EPC. Regarding novelty, he was of the opinion that the known silicon emulsions which were intended for the lubrication of metallic surfaces were "non-inert and toxic" and therefore different from the claimed ones. With respect to inventive step he pointed out that document (2) only disclosed the use of a silicon fluid as support for impregnating corks with an antibiotic. However, it did not address the problem of contamination of a foodstuff by the silicon fluid nor does it disclose the use of silicon greases. Thus neither of documents (1) and (2) alone or in combination could suggest the use of silicon greases for the lubrication of corks.

V. In a communication pursuant to Art. 110(2) EPC the Board expressed the preliminary opinion that the claimed compositions lacked novelty in respect of document (3). In addition, doubts were expressed as to whether the intended use would involve an inventive step in view of the disclosure in documents (2) and (3).

VI. On 8 May 1992, in response to the above communication, the Appellant filed new Claims 1 to 4, the only independent Claim 1 now reading as follows:

"Use of product for the lubrication and sealing of corks of containers of long shelf-life beverages and foodstuffs, actually represented by the use of paraffin, vaseline or pure fluid silicone, characterised by the use of a stable emulsion of a fluid silicone with a thickener, where both these components are inert and non-toxic."

In respect of inventive step it was submitted that the problem to be solved with the known silicon greases was lubrication under high mechanical load and not the

prevention of seeping. Furthermore, the art of lubrication of corks for beverages was quite remote from that of lubricating metals. Thus a person skilled in the art of lubricating and sealing corks for beverages would not address himself to textbooks dealing with lubrication in general when looking for a suggestion how to solve the technical problem of avoiding the contamination of beverages with the silicon fluid used for lubricating the cork.

VII. The Appellant requests that the decision under appeal be set aside and the patent be granted on the basis of Claims 1 to 4 received on 8 May 1992.

Reasons for the Decision

1. The appeal is admissible.
2. No objection under Art. 123(2) EPC arises against the present claims, since the use now claimed is that disclosed for the compositions claimed in the application as filed (see page 3, lines 10 to 14).
3. Objection may arise against the wording of the present Claim 1 under Art. 84 EPC (conciseness). However, since the Appellant's request must fail for another reason, this matter may be left undecided.
4. None of the cited documents disclose the use of a grease based on a silicon oil for lubricating corks. Therefore, in the Board's judgment, the claimed subject-matter is novel.
5. However, the claimed subject-matter does not involve an inventive step.

- 5.1 It is already acknowledged in the description and is disclosed in documents (2) and (3) that fluid silicones can be used for lubricating corks. In the Board's judgment, this use is the closest state of the art. It implies that the fluid silicones are inert to foodstuffs and beverages normally brought into contact with corks and are not toxic.
- 5.2 As stated in the description as filed (see the paragraph bridging pages 2 and 3), the technical problem to which the application relates can be seen in avoiding the seeping of the fluid silicone into the container and further in avoiding that the silicone penetrates into the cork, thereby impairing the lubrication of the cork surface.
- 5.3 The application proposes to solve this technical problem by replacing the fluid silicone by a stable emulsion containing the said fluid silicone and an inert and non-toxic thickener, e.g. silica gel or a suitable metal stearate.
- 5.4 In the Board's judgment the existence of this problem had become inevitably apparent during the use of the known fluid silicones. It was also obvious that the problem was caused by the low viscosity of the fluid silicones. Therefore, a person skilled in the art of food technology would immediately recognise that the first step towards solving this problem would be to increase the viscosity of the lubricant. He would then inevitably address himself to literature concerning the technically relevant properties of silicone oils, because he would expect that viscosity problems would arise also in respect of other applications of these oils (see also T 195/84, OJ EPO 1986, 121, point 8.4 of the reasons). Thus, the Board is unable to

accept the Appellant's submission that a person skilled in the art of lubricating corks cannot be expected to consider textbooks concerning the properties of silicone oils in general, such as document (3), in order to find out how the viscosity of silicone oils can be increased. On the contrary, even if this skilled person would not be able to solve the problem himself, it is the consistent jurisprudence of the Technical Boards of Appeal that a person skilled in the technical field where the solution of the technical problem is expected to be found would be consulted (see T 32/81, OJ EPO 1982, 225, point 4.2 of the reasons).

In both circumstances, document (3) belongs to the relevant state of the art. It discloses that it is common in the art of lubrication to add thickeners, e.g. silica gel, to silicone oils for increasing the viscosity (see left-hand column, 6th paragraph), in particular metal salts of fatty acids, such as lithium stearate, or silica gel (7th paragraph). The disclosure in this document is in no way limited to the lubrication of metal surfaces under high mechanical load. It also addresses the lubrication of corks by silicon oils. In the first paragraph on the right-hand column it is stated that silicon greases may be used to lubricate water taps, water softeners and ice-machines. For all these uses the silicon grease must be non-toxic. In addition, a person skilled in the art of food technology would immediately realise, on the basis of his common general knowledge, that silica gel is not toxic and therefore suitable for obtaining greases which may come into contact with foodstuffs.

It was therefore obvious to use the known silicone greases comprising silica gel and metal soaps as thickeners instead of the pure fluid silicones for solving the present technical problem.

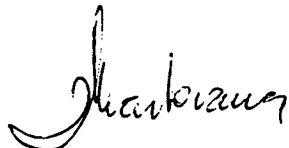
6. In the absence of any request to consider the dependent Claims 2 to 4 separately, these claims fall together with Claim 1.

Order

For these reasons, it is decided that:

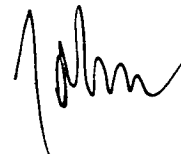
The appeal is dismissed.

The Registrar:



P. Martorana

The Chairman:



K.J.A. Jahn