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D E C I S I O N
of 29 December 1993

Case Number: T 0860/93 - 3.3.3

Application Number: 88115147.6

Publication Number: 0307915

IPC: C08B 11/193

Language of the proceedings: EN

Title of invention:
Carboxymethyl hydrophobically modified hydroxyethylcellulose (cmhmhec) and use of cmhmhec in protective coating compositions

Applicant:
Aqualon Company

Opponent:
-

Headword:
-

Relevant legal norms:
EPC Art. 84

Keyword:
-

Decisions cited:
T 0124/85, T 0050/89, T 0454/89

Headnote:

I. Where a quality is expressed in a claim as being within a given numerical range, the method for measuring that quality must either be general technical knowledge, so that no explicit description is needed, or a method of measuring that quality needs to be identified (decision T 124/85 of 14 December 1987 - not reported in OJ EPO - followed). In contrast, where a claim specifies a relative quality, in this case that the products should be "water-soluble", it is not normally necessary to identify any method for its determination.

II. The provision of Article 69(1) EPC, according to which the description and drawings shall be used to interpret the claims, applies also to the clarity requirement of Article 84 EPC, provided that the claims are not self-contradictory (decision T 454/89 of 11 March 1991 - not published in OJ EPO - explained).

Case Number: T 0860/93 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 29 December 1993

Appellant: Aqualon Company
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Decision under appeal: **Decision of the Examining Division of the European Patent Office dated 25 May 1993 refusing European patent application No. 88 115 147.6 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: F. Antony
Members: R.A. Lunzer
F. Benussi

Summary of Facts and Submissions

I. European patent application No. 88 115 147.6, publication No. 0 307 915, was filed on 15 September 1988, claiming a priority date of 17 September 1987 derived from US application No. 0 097 777.

II. By its decision of 25 May 1993 (original date of 22 May amended) the Examining Division refused the application, holding that the requirement of Article 84 EPC that the claims should be clear was not satisfied, because the term "water-soluble" in Claim 1 was undefined. In support of its decision reference was made to two decisions of the Boards of Appeal, T 124/85 of 14 December 1987 and T 454/89 of 11 March 1991 (both unreported in OJ EPO).

The single independent Claim 1 was in the following form:

"A water-soluble cellulose ether derivative that has attached to it a long-chain alkyl group as a hydrophobic modifier is characterized in that the cellulose ether derivative is an anionic carboxymethyl hydroxyethyl derivative, the carboxymethyl degree of substitution is from 0.05 to less than 1, and the long-chain alkyl group is a long chain alkyl, alphahydroxyalkyl, or acyl group having 8 to 25 carbon atoms and represents in the polymer structure a proportion by weight of the total cellulose polymer of from about 0.10 to about 4.0%."

III. In its first communication of 3 September 1991, the Examining Division had simply objected that the term

"water-soluble" was obscure in its scope in the absence of any definition of what it meant. This objection was elaborated in the second communication of 21 February 1992, in which the Examining Division argued:

> "The expression "water-soluble" without further specifying the method to be used for its determination is obscure. Strictly speaking the expression "water-soluble" means "totally soluble at any temperature and at any concentration in water", but there is no polysaccharide which fulfills such criteria; no patent can be granted for subject-matter which does not exist."

If the expression "water-soluble" was intended to be an effective limitation of the scope of the claim, the method for its determination should be defined, including the temperature and concentration at which it is to be determined. In its third communication of 30 June 1992, recording a telephone conversation held a few days earlier, the Examining Division had put detailed questions to the Appellant concerning the methods of solubility testing to be used in deciding which compounds were water-soluble. These arguments are by implication part of the decision under appeal.

IV. An appeal against the decision of the Examining Division was filed on 20 July 1993, the appeal fee was paid on the same day, and the Statement of Grounds of appeal filed on 27 August 1993. With a view to meeting some of the objections previously raised, the Appellant included further information concerning the solubility of cellulose ether derivatives of the kind in issue, but argued in addition that the term "water-soluble"

was clear to the skilled reader in the context of the application in suit.

V. The Appellant requested that the decision under appeal be set aside, and that a patent be granted on the application in suit.

Reasons for the Decision

1. The appeal is admissible.

2. *Article 84 EPC*

2.1 The present appeal is limited to the issue of the clarity requirements of Article 84 EPC, and specifically whether the rejection of the application was justified on the ground of the use of the term "water-soluble" in Claim 1. Consequently, the Board does not propose to consider in this decision whether or not there may be other areas of obscurity in the wording of the Claim calling for attention.

2.2 As is evident both from the reliance placed by the Examining Division on T 124/85 (14 December 1987), and from its questions concerning methods of testing for solubility, some confusion has arisen between the need for the identification of a mode of testing, which was required in the above-mentioned case, when a numerical range for a given parameter had been specified, as contrasted with the possession of a relative quality, where the mere identification of that quality may suffice, depending on the circumstances of the case, to

enable the skilled reader to understand the meaning of the claim.

3. *The use of relative terms in claims*

3.1 The use of relative terms in claims has been accepted by the EPO from its inception. As is indicated in the Guidelines for Examination (C-III, 4.5), where a term has a well-recognised meaning in a particular art, e.g. "high frequency" in relation to an amplifier, such a term may be clear to the skilled reader. The Board would add that a wide variety of ordinary terms such as, "conductive", "semi- conductive", "tough", "high-tensile" and many others may be clear to the skilled reader in a given context, and if so may legitimately be used in the claims of a European patent.

3.2 The legitimate use of relative terms in appropriate circumstances has to be contrasted with the factual position in T 124/85, relied on by the Examining Division, where the claim specified that a certain parameter should have a given **numerical range**. There the point at issue was the clarity of a definition of the air permeability of a fabric.

3.3 Air permeability can be defined by indicating the **volume** of air at a given **pressure** which passes through a given **area** of cloth in a given **time** interval; i.e. it requires the specification of four items. In fact, only two of those four items, volume and time, were given, and the question was whether the skilled reader would have known from his general knowledge the nature of the test method contemplated, and could thus supply the missing but essential information concerning area and

pressure. In the circumstances of that case, it was held that the skilled reader would have known what method of measurement was contemplated, he could thus have supplied the missing information, and hence the claim was clear.

3.4 That situation can usefully be contrasted with what might have been the situation if, instead of specifying a numerical range for air permeability, the claim had merely required that the cloth should be "air permeable". In that case it would have been an issue of fact as to whether that term would have been sufficiently clear in its context to the skilled reader or not.

4. *Clarity of Claim 1 in suit*

4.1 Turning to the present case, the Appellant cited in its letter of 17 June 1992 Ullmann's Encyclopedia of Industrial Chemistry, 5th Edn. Vol. A5, 1986, which states at the opening of the chapter on cellulose ethers at page 461:

> "Most cellulose ethers are water-soluble polymers: some types are also soluble in organic solvents."

It is clear that the authors of that text, addressed to persons involved in that art, expected the reader to understand what degree of solubility was meant by the unqualified term "water-soluble" in that context.

4.2 On 13 October 1992 the Appellant filed a copy of a letter from an expert, Dr Ernst K. Just, who explained that the term "water-soluble" is a relative term when

used in connection with polymers, and that the ASTM provides no standard tests or guidelines for categorising and defining water-solubility in polymers. Those facts were neither disputed by the Examining Division in its communications with the Appellant, nor in the decision under appeal, and are accepted by the Board as being true.

4.3 Together with its grounds of appeal the Appellant has attempted to meet the call by the Examining Division for information concerning the solubility of cellulose ether derivatives, and the methods for the determination of such solubility by providing information on these topics. However, the Board has taken no account of that material, because it is irrelevant to the issue which has to be decided. It would not matter whether the actual solubility of these polymers is normally of the order of 0.1%, or 50%, or even if they were to fall within the hypothetical class of substances mentioned by the Examining Division which are, "totally soluble at any temperature and at any concentration in water" (see paragraph III above). The Board observes that that class excludes even such everyday soluble substances as salt and sugar from the category of substances regarded by the Examining Division as being soluble.

4.4 In addition, it does not matter for the purposes of the present decision whether the water-solubility of the polymers here in issue is commonly determined by one or more known standard methods, nor whether such methods of testing would give the same, or different results, because Claim 1 here in suit does not specify any numerical degree of solubility.

4.5 The sole point that matters is whether, in the present context, the direction to the skilled reader to select cellulose ethers which are water-soluble has a sufficiently precise meaning to make the claim clear. On that issue, there has been no attempt on the part of the Examining Division to meet the Appellant's assertions, backed by text-book references, that the term is sufficiently clear in its context to be understood by skilled workers, nor has the Examining Division backed its assertions of lack of clarity by reference to any relevant literature demonstrating that an apparently clear term is lacking in clarity.

5. *The requirement to interpret claims in their context*

5.1 It is a general principle of law, which so far the Board is aware is accepted throughout all the Contracting States, that the proper interpretation of any document, and more specifically any part of a document, is to be derived by having regard to the document as a whole. That principle is expressed in Latin as:

> **Ex praecedentibus et consequentibus optima fit interpretatio:** (The best interpretation is that made from what precedes and what follows.)

The EPC and its Implementing Regulations do not suggest that any departure from the generally accepted principles of legal interpretation is contemplated.

5.2 That principle appears to have been tacitly applied throughout the EPO, and is consequently the subject of very little of the case law of the Boards of Appeal. An

example of a case in which a Board looked *inter alia* at the description in order to decide whether or not certain terms used in the claims would be clear to the skilled reader was decision T 50/89 of 8 November 1989 (not reported in OJ EPO). The claim there in issue concerned a control loop of a particular kind. The terms objected to were "target value", "applying the inverse transformation of the first transformation", and "linear identification". In paragraphs 3.1, 3.5, and 3.6 of its decision, the Board there concerned referred to the relevant passages of the description, and concluded in their light, as well as in the light of the prior art available, that those terms were clear enough in their context not to offend against the requirements of Article 84 EPC.

5.3 In this connection it needs to be added that whereas Rule 29(6) EPC states that, "Claims shall not, except where absolutely necessary, rely ... on references to the description or drawings ...", that Rule has no impact on the general principle that the claims of a patent, being a part of a document as a whole, need to be construed in their context.

5.4 As the decision under appeal referred in support of its adverse finding to the earlier decision T 454/89 of 11 March 1991 (not reported in OJ EPO), the Board considers it useful to consider what was established in that case. It involved a factual situation in which a claim identified as "1A" had two features which were **mutually incompatible**, and the subject-matter of the claim was therefore not feasible. There was therefore a lack of clarity in the sense of Article 84 EPC (paragraph 3.3(v) of the Reasons at page 16).

5.5 Attempting to meet that objection, the Patentee contended that the reader could resolve the lack of clarity of Claim 1A by reference to the description. However, it was held in that decision, rightly in this Board's view, that the description could not be invoked to overcome the contradictory wording of the claim, so as to render its meaning clear.

5.6 However, there followed a statement of principle which possibly went further than was intended having regard to the circumstances of that case. It was expressed in these terms: (paragraph 3.3(vii) at page 17)

> "The Board is of the view that Article 84 EPC requires that the claims are clear in themselves when being read with the normal skills including the knowledge about the prior art, but not including any knowledge derived from the description of the patent application or the amended patent".

That broad statement, although correct when applied to its own facts, is hardly compatible with the general principle that the meaning of terms of art used in claims may be coloured by what has gone beforehand in the description.

5.7 Furthermore, in the following paragraph (viii at page 18), that decision went on to state that;

> "Article 69 EPC is only concerned with the extent of protection conferred ... whenever that extent is to be determined, particularly for third parties -" and added that, "the applicant or

patentee cannot, therefore, rely on Article 69 EPC as a replacement for the Article 84 requirements, i.e. as a substitute for an amendment which would be necessary to remedy a lack of clarity."

Again, this Board find itself in agreement with the latter of those two statements when taken in the context of a claim which is self-contradictory. However, the determination of the extent of protection is no more than an aspect of the interpretation of the words of a claim, something which has to be done by every Examining Division and Opposition Division before it can decide such essential issues as novelty and inventiveness. The Board sees no reason why the positive requirement of Article 69(1) EPC that, "the description and drawings shall be used to interpret the claims", should not apply at those stages too, save in such a case as T 454/89, where the claim is self-contradictory.

6. *Conclusion*

In the present case, taking into account the unchallenged evidence of the Appellant demonstrating that the term, "A water-soluble cellulose ether derivative ...", as used in Claim 1 in suit, is clear to the skilled reader, and also having regard to the general obligation on the part of anyone attempting to construe a claim to have regard to its context in the light of the description, the Board is satisfied that the objection raised by the Examining Division is lacking in substance, and that the appeal should be allowed.

7. *Rule 67 EPC*

Under Rule 67 EPC, a Board of Appeal has a discretion to order the reimbursement of appeal fees when an appeal is allowed, and when there has been, "a substantial procedural violation". This discretion exists even where there has been no request for reimbursement. In the present case there has been a gross error of judgment on the part of the Examining Division, but there is no procedural non-compliance of the kind which is a condition precedent to the Rule taking effect. The Board is thus precluded from ordering reimbursement of the appeal fee in the present case.

Order

For these reasons, it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Examining Division for further examination.

The Registrar: The Chairman:

E. Görgmaier F. Antony