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**D E C I S I O N**  
**of 27 September 2004**

**Case Number:** T 0366/99 - 3.3.7

**Application Number:** 88304241.8

**Publication Number:** 0294041

**IPC:** C09D 9/00

**Language of the proceedings:** EN

**Title of invention:**

Aqueous-based composition for removing coatings

**Patentee:**

MINNESOTA MINING AND MANUFACTURING COMPANY

**Opponent:**

ECO SOLUTIONS LIMITED

**Headword:**

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**Relevant legal provisions:**

EPC Art. 54, 83, 84, 111(1), 123

**Keyword:**

"Clarity: objected expression already present in claims as granted - no opposition ground"

"Sufficiency: - (yes)"

"Novelty: - with respect to objections in first instance proceedings - (yes), with respect to objections in appeal proceedings - (remittal)"

"Remittal - (yes)"

**Decisions cited:**

T 0219/83

**Catchword:**

-



Case Number: T 0366/99 - 3.3.7

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.7  
of 27 September 2004

**Appellant:** MINNESOTA MINING AND MANUFACTURING COMPANY  
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**Respondent:** Eco Solutions Limited  
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**Representative:** Brown, David Leslie  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 28 January 1999  
revoking European patent No. 0294041 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** R. E. Teschemacher  
**Members:** P. A. Gryczka  
G. Santavicca

## Summary of Facts and Submissions

- I. The mention of the grant of European patent No. 0 294 041 in respect of European patent application No. 88304241.8, filed on 11 May 1988, was published on 26 June 1996.

The patent as granted contains the following independent claims:

"1. A stable emulsion for rendering organic polymer coatings removable from vertical surfaces consisting essentially of (1) at least 10% by weight of at least one dibasic ester, (2) at least 50% by weight of water, and (3) at least one thickening agent selected from water soluble and water swellable thickening agents."

"8. Use of a stable emulsion of a dibasic ester to render organic polymer coatings removable from vertical surfaces, the emulsion containing at least 50% by weight of water and at least one thickening agent selected from water-soluble and water-swellable thickening agents."

- II. A notice of opposition was received on 25 March 1997 in which revocation of the patent was requested on the grounds of added subject-matter (Article 100(c) EPC), insufficiency of disclosure (Article 100(b) EPC) as well as lack of novelty and inventive step (Article 100(a) EPC).

The following documents were cited, *inter alia*, during the opposition proceedings:

D1: DE-C-3 438 399

D2: JP-A-57-83598 (partial translation into English)

D5: JP-A-57-83598 (complete translation into English)

III. The decision under appeal was based on a main request (patent as granted) and two auxiliary requests, filed during oral proceedings held on 13 January 1999, in which only claim 8 had been amended.

In the first auxiliary request amended claim 8 read as follows:

"8. Use of a stable emulsion for rendering organic polymer coatings removable from vertical surfaces, the emulsion consisting essentially of a dibasic ester, at least 50% by weight of water and at least one thickening agent selected from water-soluble and water-swallowable thickening agents."

In the second auxiliary request amended claim 8 read as follows:

"8. Use of a stable emulsion as claimed in any of claims 1 to 7 for rendering organic polymer coatings removable from vertical surfaces."

In its decision the opposition division held that:

- (a) Claim 8 as granted had no basis in the application as filed. The main request was consequently not allowable.

- (b) Claim 8 according to the first auxiliary request extended the scope of claim 8 as granted and thus contravened the requirements of Article 123(3) EPC.
- (c) The invention was sufficiently disclosed in the patent in suit (Article 100(b) EPC).
- (d) The subject-matter of claim 1 of all requests was not novel with regard to D5. In view of this conclusion it could be left undecided whether or not D1 disclosed already a composition in accordance with claim 1 of the patent in suit.

IV. The Proprietor (Appellant) lodged an appeal against the above decision, received on 7 April 1999, the appeal fee being paid on the same day. With the statement setting out the grounds of appeal, received on 7 June 1999, the Appellant filed 8 sets of amended claims as the main request and the first to the seventh auxiliary requests.

The main request corresponded to the first auxiliary request underlying the impugned decision.

V. In a letter dated 27 September 2003, the Respondent (Opponent) referred to document US-A-4 508 634 cited during examination of the application for the patent in suit.

VI. During the oral proceedings which took place on 27 September 2004 the Appellant filed six sets of amended claims as the first to the sixth auxiliary request, replacing all the previous auxiliary requests.

VII. The Appellant's arguments can be summarised as follows:

- (a) Claim 8 of the main request, corresponding to the first auxiliary request underlying the contested decision, related to the use of a stable emulsion of a dibasic ester as claim 8 of the patent as granted. The objection of the opposition division according to Article 123(3) EPC was thus unfounded.
- (b) Since the term "consisting essentially of" in claims 1 and 8 of the main request was already present in claim 1 as granted, it could not be objected to under Article 84 EPC. This term was also in accordance with the description of the opposed patent which taught that no other essential compound than those specified in claim 1 should be present in the composition in important amounts.
- (c) The examples of the opposed patent fell under the wording of the claims. The invention was thus sufficiently disclosed.
- (d) As to novelty, D1 related to paint-stripping compositions of specific esters in high concentration and not to a composition with at least 50% by weight of water. Further, the thickening agent was not necessarily water-soluble or water-swellable. The claimed subject-matter was therefore novel over the disclosure of D1.

- (e) The compositions according to D2 or D5 were solutions and not stable emulsions. Furthermore, D5 did not disclose compositions containing a thickening agent selected from water-soluble and water-swellable thickening agents. Thickening agents were only mentioned in a list of several possible additives. No mention was made there of water-soluble or water swellable-thickening agents.

The claimed subject matter was therefore novel over the disclosure of D5.

- (f) US-A-4 508 634 was late filed and not relevant. It mentioned esters of dibasic acids as possible co-solvents in aqueous skin cleaner compositions comprising propylene carbonate. However, in order to arrive at the compositions according to the patent in suit several selections within the possibilities offered by that US document had to be made. The document left open the possibility of using a co-solvent or not, and disclosed several compounds for that purpose. This disclosure in the US document could therefore not prejudice the novelty of the claimed compositions. Furthermore, as the cleaning of skin could not be compared to the removal of organic polymer coatings from vertical surfaces, the subject-matter of claim 8 was also novel.

In addition, it could not be established without doubts whether the main active compound of the compositions of the document US-A-4 508 634, i.e. propylene carbonate, was a dibasic ester in the sense of the patent in suit.

VIII. The Respondent submitted that:

- (a) Since the dependent claims mentioned the addition of a surfactant, the term "consisting essentially of" in claims 1 and 8 of the main request was not clear and could only mean "comprising". The claims left also open the possibility of adding up to 40% by weight of a thickening agent, whereas claim 2 recited only 0,5 to 4% by weight of that compound.

Claim 7 was not clear as it required at least 50% by weight of water and the amount of dibasic ester could be 50% by weight. Under these conditions, the composition could not contain at least 0.5% of a thickening agent as required by the claim.

- (b) The embodiments according to the examples of the patent in suit fell under the wording of the claims but were not an adequate support for the breadth of the claims. The invention was thus not sufficiently disclosed.
- (c) Example 1 of D1 disclosed a composition with only 5 % by weight of water. However, claim 3 of D1 which was not restricted to any amount of water, involved the addition of a soap for rendering the composition water soluble and thus, implicitly, disclosed that water was added to the compositions containing dibasic esters and a thickening agent. The claimed subject-matter was thus not novel with regard to D1.



- (d) As to D5, it related to aqueous compositions which contained the same ingredients as the patent in suit. Hence, the thickening agents envisaged there could only be water-soluble or water-swellaable and the compositions stable emulsions. Therefore, D5 was prejudicial to the novelty of the claimed composition and use.
- (e) US-A-4 508 634, which had already been cited during the examination proceedings, mentioned esters of dibasic acids as possible co-solvents in aqueous skin cleaner compositions comprising propylene carbonate and thickening agents. As the wording of the claims of the opposed patent did not exclude the presence of other active ingredients such as propylene carbonate, whether or not propylene carbonate was a dibasic ester in the sense of the patent in suit, the claimed subject-matter lacked novelty or at least inventive step with regard to that document.

IX. The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request submitted with letter dated 7 June 1999, alternatively on the basis of one of the sets of claims submitted as first to sixth auxiliary requests during the oral proceedings and replacing all the previous auxiliary requests. In addition, in case the Board considered document US-A-4 508 634 to be relevant, he requested to remit the case to the first instance.

The Respondent requested that the appeal be dismissed.

## **Reasons for the Decision**

1. The appeal is admissible.

### *Main request*

### *Amendments*

2. The amendment in claim 8, i.e the replacement of the term "containing" by the expression "consisting essentially of" is based on the originally filed description, page 3, lines 31 and 32, and is thus in accordance with the requirements of Article 123(2) EPC. This was not contested by the Respondent.

- 2.1 According to the decision under appeal, claim 8 as granted defined the use of a stable emulsion of a dibasic ester whereas claim 8 of the first auxiliary request (corresponding to claim 8 of the present main request) was generalized to an "emulsion of whatever type". Therefore, the amendments in claim 8 were held to extend the scope of claim 8 as granted (Article 123(3) EPC).

Claim 8 as granted as well as claim 8 of the present main request relate to the use of a stable emulsion to render organic polymer coatings removable from vertical surfaces. The term "stable emulsion" defines a physico-chemical property of the composition which is used for the purpose foreseen in the claim and implies that the composition in its entirety has to be in the form of a stable emulsion. This requirement of the granted claim 8, still applies to the amended claim 8.

The stable emulsion is further defined by its ingredients. The fact that in the wording of the amended claim 8 the term "dibasic ester" is not placed directly after "stable emulsion" has no bearing on the fact that the emulsion should be stable and contain, as also specified in claim 8 as granted, at least 50% by weight of water, a dibasic ester, and at least one thickening agent selected from water-soluble and water-swelling thickening agents.

- 2.2 Therefore, amended claim 8 does not extend the scope of protection conferred by the claims as granted (Article 123(3) EPC). This was not contested by the Respondent in the appeal proceedings.

#### *Clarity*

3. The Respondent has raised objections to the term "consisting essentially of" in claims 1 and 8 and to the ranges defining the amounts of the ingredients in claims 2 and 7.
- 3.1 Claims 1, 2 and 7 of the main request are already present in the claims as granted. Therefore, they cannot be objected to under Article 84 EPC, as lack of clarity is no ground for opposition (Case Law of the Boards of Appeal of the EPO, 4<sup>th</sup> Edition, 2001, section VII.C.10.2).
- 3.2 The term "containing" in the definition of the emulsion in granted claim 8 has been replaced by the term "consisting essentially of". However, the term "consisting essentially of" is already present in

granted claim 1 in relation to the definition of the emulsion. Consequently, this term cannot be objected to under Article 84 EPC.

- 3.3 With regard to the meaning of the term "consisting essentially of", it can be derived from the patent in suit in its entirety that other ingredients, such as in particular a surfactant, can be present in the stable emulsion (page 3, lines 24 to 28; claim 3).

*Sufficiency of disclosure*

4. An invention is sufficiently disclosed within the meaning of Article 83 EPC if a person skilled in the art can carry it out on the basis of the information provided in the specification as filed, in the light of common general knowledge.

- 4.1 The examples of the patent in suit illustrate stable emulsions falling under the claims of the opposed patent and provide sufficient information for the skilled person how to prepare the exemplified compositions (examples 1 to 9, page 3, line 55 to page 6, line 30, page 7, line 41 to 56). This has not been contested by the Respondent who argued, however, that the examples only illustrated a "small part" of the compositions which were encompassed by the claims.

However, the information provided by the patent in suit is not restricted to the examples. The patent in suit gives information on the nature and amounts of the different ingredients of the claimed compositions and on the method for preparing the composition (page 3, lines 4 to 49). This disclosure enables the person

skilled in the art to formulate, in addition to the exemplified compositions, further stable emulsions within the ambit of the claims.

4.2 The Respondent has not submitted any evidence that compositions falling under the claims of the opposed patent could not be reproduced according to the guidance of the patent specification. The onus of proof in this respect lies however with the opponent (T 219/83, OJ EPO 1986, 211).

4.3 Consequently, the Board is satisfied that the invention is sufficiently disclosed for it to be carried out by the skilled person within the whole ambit of the claims, so that the requirements of Article 83 EPC are met.

#### *Novelty*

5. Independent claim 1 as well as independent claim 8 require a stable emulsion consisting essentially of, at least 50% by weight of water, a dibasic ester and at least one thickening agent selected from water-soluble and water-swellable thickening agents.

5.1 D1 discloses an opacifier-free, in particular wax-free, paint stripping composition, preferably for removing building wall paints and wall paints on an organic basis, characterized by a content of methyl and/or ethyl and/or propyl and/or butyl esters of succinic and/or glutaric and/or adipic acid (claim 1). The composition optionally contains an organic thickener (claim 2) and one or more soaps for water-solubilisation (claim 3). Example 1 discloses the following composition:

12,0 weight% diethylenglycolmonobutylether  
15,0 weight% dimethylester of succinic acid  
45,0 weight% dimethylester of glutaric acid  
6,0 weight% dimethylester of adipic acid  
2,0 weight% cellulose acetobutyrate (thickener)  
5,0 weight% alkylbenzolsulfonate (soap)  
10,0 weight% sodium oleate  
5,0 weight% water.

- 5.1.1 This composition differs from the claimed compositions by the fact that it contains only 5 weight% of water. No other water content is explicitly specified in D1.
- 5.1.2 According to claim 3 of D1 one or more soaps can be added to the composition for water-solubilisation. Even if it could be accepted that this feature inherently implies that water is added at some stage during the use of the composition, as argued by the Respondent, no mention is made in D1 of the amount of water involved. Furthermore, the addition of water to the composition before use is not foreseen in D1. The product obtained if additional water is involved at some stage after application of the paint stripping composition, for example in a cleaning or rinsing step in order to remove the used composition and the paint from the treated surface, could possibly contain more water than the initial paint stripping composition. However, a difference has to be made between a product for rendering organic polymer coatings removable and a product which has already been used for this purpose and apparently cannot be applied a second time. In addition, it has not been shown that such a "waste"

product would inevitably be in the form of a stable emulsion as required by the patent in suit.

Consequently, D1 is not prejudicial to the novelty of the subject-matter according to the main request.

5.2 D5 and the partial translation D2 disclose a liquid detergent for cleaning hard surfaces characterised in that it contains from 1 to 20 weight% of succinic acid diester, from 0.5 to 5 (but not including 5) weight% of anionic surfactant, from 1 to 40 weight% nonionic surfactant and from 60 to 95 weight% water (claim 1).

5.2.1 In the discussion concerning the amount of succinic diester, D5 mentions that if the amount of the diester exceeds 20% by weight "there are cases where it becomes impossible to form a stable homogeneous aqueous solution, and this is undesirable" (page 7, last paragraph to page 8, line 2). The teaching of D5 aims consequently at obtaining and the use of detergent "solutions". The examples of D5 were carried out without thickening agent, which according to the patent in suit are necessary to stabilize the water/ester emulsion (page 3, lines 16 to 19). No evidence has been brought by the Respondent that, in absence of such thickening agents, the compositions exemplified in D5 were nevertheless stable emulsions.

For these reasons it cannot be concluded that D5 directly and unambiguously discloses liquid detergents in form of stable emulsions.

5.2.2 D5 generally mentions, among several usual auxiliary components such as perfumes, colorants and fungicides, that thickeners can be added to the liquid detergents

(page 9, second paragraph). However, no further information with respect to the nature of the thickeners is given in D5.

It is not disputed that the generic term "thickeners" mentioned in D5 encompasses not only "water soluble and water swellable thickening agents" as required by the claims of the patent in suit, but also thickening agents which have a thickening effect in an organic phase and which are thus not necessarily water-soluble or water-swellable. Therefore, the specific thickening agents defined in the claims of the opposed patent are not disclosed in D5, which not only leaves open the possibility of adding a thickening agent or not, but which furthermore does not specify precisely the kind of thickening agents.

5.2.3 Therefore, the subject-matter according to the claims of the main request is novel over the disclosure of D5.

5.3 US-A 4 508 634 (thereafter called the US document) discloses a composition useful for removing paint, primer grease, dirt from the surface of skin comprising:

- (a) from about 10% to about 40% by weight propylene carbonate,
- (b) from about 10% to about 50% by weight water,
- (c) from about 1% to about 30% by weight at least one cosolvent,
- (d) from about 0.5% to about 12% by weight at least one surfactant,



- (e) from about 0.1% to about 5% by weight at least one thickening agent,
- (f) from about 0.01% to about 1% by weight at least one buffering agent, and
- (g) from 0% to about 15% by weight at least one abrasive material (claim 1).

5.3.1 The composition according to the US document can thus contain 50% by weight of water, which corresponds to the lowest limit of the water content of the compositions claimed in the patent in suit.

5.3.2 According to the US document the thickening agents present in the compositions act as protective colloids, operating to prevent coagulation and demulsification of the composition. They further act to prevent coagulation of the emulsion particles which constitute the composition of the invention (column 4, lines 51 to 55). The suitable surfactants must provide the emulsion stability (column 3, lines 10 to 12). From these indications it can be concluded that the compositions according to the US document are designed to be, as the compositions of the patent in suit, stable emulsions.

5.3.3 Suitable thickening agents for use in the composition of the US document include thickening agents mentioned also as suitable thickening agents for the composition of the patent in suit in particular gums, such as guar gum, and cellulose derivatives (US-A 4 508 634, column 4, lines 56 to 65; patent in suit page 3, lines 19 to 24).

5.3.4 Consequently, the US document discloses stable emulsions comprising 50% by weight of water and a water-soluble or water-swellable thickening agent. However, the question arises whether these compositions contain also at least 10% by weight of at least one dibasic ester as required by claim 1 of the patent in suit.

5.3.5 The compositions according to the US-document comprise from about 1% to about 30% by weight of at least one co-solvent (claim 1, compound (c)). These co-solvents aid in removing dried paint, stabilizing the composition, and moisturizing the skin (column 3, lines 5 and 6). Different compounds are envisaged for this purpose, namely monohydric alcohols having from 1 to 22 carbon atoms, dihydric and polyhydric alcohols having from 2 to 22 carbon atoms, polyethylene glycols and polypropylene glycols having molecular weights of from 100 to 20,000; and also esters of aliphatic monobasic and dibasic acids having from 2 to 22 carbon atoms (column 2, line 52 to column 3, line 4). However, only propylene glycol and ethanol are exemplified as co-solvents (Example I).

In order to arrive at compositions in accordance with the patent in suit, esters of dibasic acids have consequently to be selected within the list of the possible co-solvents. In addition to that selection, the amount of co-solvent which according to the US document can be from 1 to 30% by weight, has to be at least 10% by weight in accordance with the patent in suit. Therefore, although a composition in accordance with the claim 1 of the patent in suit can, "ex post

facto", be reconstructed by the different alternatives that the US document leaves open with regard to the co-solvent, this document does not directly and unambiguously disclose a composition where the co-solvent is a dibasic ester and is present in an amount of at least 10% by weight.

Therefore, the novelty attack based on the disclosure in the US document that dibasic esters are possible co-solvents fails.

- 5.3.6 However, during the oral proceedings the question arose whether propylene carbonate could be considered as a dibasic ester. Taking into account that the composition according to claim 1 of the US document comprises from about 10% to about 40% by weight of propylene carbonate, this disclosure is of high relevance for the assessment of novelty of the claimed subject-matters if "propylene carbonate" falls under the definition of a "dibasic ester". In this respect reference was made to the indication in the US document that propylene carbonate was "sometimes referred to as a cyclic carbonate inner ester" (column 2, lines 15 and 16). However, the parties could not establish beyond any doubt whether or not such a compound is to be considered as a dibasic ester. Since the question has not been discussed before, none of the parties had made any inquiries in this respect. Therefore, it appears that the factual basis for a decision on this matter is not sufficient.

*Remittal*

6. In view of the importance of the answer to the above question (point 5.3.6) on the issue of novelty, and consequently on the outcome of the proceedings, the Board finds it appropriate to remit the case to the department of first instance in order to give both parties the opportunity of presenting facts and arguments with respect to that point. As the department of first instance has not yet taken a decision on inventive step, a remittal is in any case appropriate to preserve the right of the parties to have this issue considered at two instances (Article 111(1) EPC).

**Order**

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

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:

C. Eickhoff

R. E. Teschemacher