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D E C I S I O N
of 29 June 2004

Case Number: T 0229/01 - 3.3.2

Application Number: 91301522.8

Publication Number: 0447056

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Language of the proceedings: EN

Title of invention:
Water dispersible granules

Patentee:
SUMITOMO CHEMICAL COMPANY LIMITED

Opponent:
Elf Atochem North America, Inc.
American Cyanamid Company

Headword:
Water dispersible granules/SUMITOMO CHEMICAL COMPANY

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step - no: arbitrary choice"

Decisions cited:
-

Catchword:
-



Case Number: T 0229/01 - 3.3.2

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 29 June 2004

Appellant: SUMITOMO CHEMICAL COMPANY LIMITED
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Respondent 1: Elf Atochem North America, Inc.
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Representative: Albrecht, Thomas, Dr.
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Respondent 2: American Cyanamid Company
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 20 November 2000
revoking European patent No. 0447056 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: U. Oswald
Members: J. Riolo
P. Mühlens

Summary of Facts and Submissions

- I. European patent No. 0 447 056, based on European application No. 91 301 522.8, was granted on the basis of 8 claims.

Independent claim 1 as granted read as follows:

"1. A water dispersible granule comprising:
(a) a pesticidally active ingredient which is solid at room temperature,
(b) an anionic surface active agent, and
(c) a kaolin clay having a volume median diameter of 2 to 10 μ m."

- II. Oppositions were filed against the granted patent by respondent 1 (opponent O1) and respondent 2 (opponent O2). The patent was opposed under Article 100(a) EPC for lack of novelty and inventive step and Article 100(b) EPC for insufficiency of disclosure.

The following documents were cited *inter alia* during the proceedings before the Opposition Division and the Board of Appeal:

- (1) GB-A-1 288 094 corresponding to DE-A-1 812 574

(11) GB-A-1 433 882

- III. By its decision pronounced on 4 October 2000, the Opposition Division revoked the patent under Article 102(1) EPC.

It held that the set of claims of the main and only request on file did not meet the requirements of inventive step.

Independent claim 1 of this request read as follows:

"1. A water dispersible granule comprising:
(a) 10 to 50% by weight of a pesticidally active ingredient which is solid at room temperature,
(b) 5 to 25% by weight of at least one anionic surface active agent selected from naphthalenesulfonate/formaldehyde condensates, alkylnaphthalenesulfonate/formaldehyde condensates and lignosulfonates,
(c) 35 to 80% by weight of a kaolin clay having a volume median diameter of 2 to 10 μ m, and
(d) 1 to 5% by weight of at least one wetting agent selected from naphthalenesulfonates, alkylnaphthalenesulfonates, alkylbenzenesulfonates, alkylsulfates and alkylallylsulfonates."

The Opposition Division was of the opinion that the subject-matter of this claim was adequately supported by the original description and did not extend the protection conferred by the claims as granted.

It also considered that the objection as to insufficient disclosure was not well-founded as the contested VMD (volume median diameter) value was in fact clearly defined and could be measured by any of the methods known to the skilled person.

Although it concluded that the claimed compositions were novel because none of the prior art document

disclosed a composition falling within the terms of the claims of the patent in suit, it nevertheless concluded that they did not involve an inventive step.

In its view, the only difference with respect to the compositions disclosed in the closest prior art document (11) was the greater amount of filler used in the compositions of the contested patent.

As document (1) did not restrict the amount of filler to be used, it considered that the skilled person could vary these amounts, as the need arose, without inventive activity.

Accordingly, in the absence of any technical effect, the amount used in the patent in suit was the result of an arbitrary choice for which an inventive step could not be acknowledged.

- IV. The appellant (patentee) lodged an appeal against the said decision.

- V. Oral proceedings were held before the Board on 29 June 2004.

- VI. The appellant submitted that the Opposition Division's reasoning for inventive step was ill-founded, firstly because, in its view, the Opposition Division was wrong in concluding that the particle size of the clay used in example 1 of document (11) was within the claimed range, and secondly because it did not accept the reformulation of the problem to be solved by the contested patent although this problem was stated in the text of the application as filed.

VII. The objection relating to insufficiency of disclosure was not maintained during the appeal proceedings.

During the oral proceedings, respondent 1 (opponent 1) repeated its novelty objection with respect to document (1) mainly in view of the fact that the composition of example 1 contained one of the wetting agents recited in claim 1.

As to inventive step, respondent 1 and respondent 2 (opponent 2) shared the Opposition Division's analysis and conclusions.

VIII. The appellant requested that the decision under appeal be set aside and that the patent be maintained in amended form set forward in the main request in front of the Opposition Division.

Respondents 1 and 2 requested that the appeal be dismissed.

Reasons for the decision

1. The appeal is admissible.
2. *Novelty*

The Board agrees with the Opposition Division's positive conclusions as to the novelty of the subject-matter of the patent in suit over the available prior art documents.

The submissions of respondent 1 relating to novelty over document (1) made during the oral proceedings do not contain any new matter not properly dealt with in the Opposition Division's decision.

In particular, the amount of wetting agent in example 3 of document (1) lies well below the range given in claim 1 of the contested patent. Moreover, the whole document is silent about any amount at all as regards the wetting agent which is in fact an optional ingredient (page 2, left column, last paragraph). Document (1) therefore does not describe a composition falling within the scope of claim 1 of the patent in suit.

Moreover, having regard to the Board's conclusions in the assessment of inventive step (see below, point 3), there would appear to be no need to develop these aspects further.

Accordingly, the Board concludes that the subject-matter of the main request fulfils the requirements of novelty (see above under III, and the Opposition Division's decision, pages 5 and 6, headnote "novelty")

3. *Inventive step*

- 3.1 The contested patent relates to a water dispersible granule comprising a pesticidally active ingredient which is solid at room temperature, at least one anionic surface active agent, a kaolin clay having a volume median diameter of 2 to 10 μ m, and 1 to 5% by weight of at least one wetting agent (page 2, lines 3

and 4, 42 and 43, 45 to 49, 52 to 55, and page 3, lines 5 and 6, 11 and 15, 16 to 19).

According to the patent in suit, these water dispersible granules have a good disintegrability-in-water and a high dispersion stability and are easy to granulate (page 2, lines 3 and 4, page 3, lines 13 to 15).

The Board considers that document (11), which also deals with water dispersible granules of a pesticidally active ingredient, represents the closest prior art.

In that respect, example 1 of this document discloses the preparation of a water dispersible granule comprising 60% of a pesticidally active ingredient which is solid at room temperature (drazoxolon), by blending together with the active ingredient in order to produce 10 kilograms of the dispersible grain formulation: 1500 g of one anionic surface active agent (a lignosulfonate salt: polyfon H), 1318 g of a kaolin clay (GTY powder: china clay diluent), and 100 g of one wetting agent (an alkylbenzenesulfonate salt: Arylan SB).

Moreover, the actual disclosure of this document contains general teaching as to the amounts of pesticide active agents (15 to 80%) and dispersing agent (ie an anionic surface active agent) (4 to 25 wt%) (see claims 17 and 18).

It is however correct, as mentioned in the appellant's grounds of appeal, that regarding the amount of filler (eg in example 1: GTY powder: china clay diluent)

disclosed in document (11), there is no general teaching, so that the range of 35 to 80 wt% required for the kaolin clay in claim 1 of the contested patent does indeed constitute a distinguishing feature over this prior art document and in particular over the amount of filler used in its example 1 (page 1, right column, lines 77 and 78).

The Board agrees moreover with the appellant that there is no disclosure of the VMD of the clay used in example 1 of document (11).

In that respect, the Board notes however that, as acknowledged by the appellant in its grounds of appeal, the respondent has provided, among others, measurements on an alleged sample of GTY clay from English China Clays from 1972 which gave a VMD in the region of 7 μm , and measurements on an alleged sample of GTY clay from English China Clays dating from 1994 which gave a VMD in the region of 7 μm (grounds of appeal, page 2, last full paragraph).

The patentee, for his part, merely argued that the respondent did not provide direct evidence that the VMD of the clay used in example 1 of document (11) falls within the claim range.

The Board observes moreover that although it is the patentee which has chosen the VMD as a particular feature in order to distinguish its claimed subject-matter over the prior art, the appellant made no submission at all to demonstrate that there exists at least one GTY clay from English China Clays which has a VMD falling outside the claimed range.

Under these circumstances, the Board is not in a position to recognise that the VMD range given in claim 1 of the contested patent constitutes a distinguishing feature over example 1 of document (11).

Accordingly, the amount of kaolin clay recited in claim 1 (ie 35 to 80 wt%) remains the only distinguishing feature over document (11) for which an inventive step has to be assessed.

- 3.2 According to the appellant, the problem solved by the contested patent was to improve the ease of granulation of the water dispersible granules as disclosed in the application as originally filed on page 5, lines 3 and 4.

The Board notes, however, that there is no experiment on file which shows that this particular beneficial advantage, or any other, exists within and only within the kaolin clay range of 35 to 80 wt% selected with respect to the disclosure of document (11) which does not teach that a particular amount should be used.

As a rule, in the case of a selection, it is nevertheless not sufficient merely to state that an unexpected technical effect exists in a selected region, in particular when this is contested by the other party during the procedure.

Accordingly, in the absence of any element demonstrative that the claimed water dispersible granules possess particular properties over the closest prior art and in particular over the water dispersible

granule of example 1, the problem to be solved by the subject-matter of claim 1 of the main request of the patent in suit as against document (11) can only be seen in the provision of alternative water dispersible granules.

- 3.3 This problem is solved by increasing the amount of kaolin clay in example 1 of document (11) to 35 wt% and by decreasing the amount of pesticidally active ingredients to below 50 wt%.

In the light of the description and examples of the patent in suit, the Board is satisfied that the problem has been plausibly solved.

- 3.4 Thus the question to be answered is whether the proposed solution would have been obvious to the skilled person in the light of the prior art.

In that respect, the Board notes that, on the one hand, document (11) teaches that the amount of pesticidally active ingredients can be as low as 15 wt% and, on the other, that the kaolin clay is used as a filler, which means that any amount can be used in order to end up with a composition having 100% ingredients (page 1, right column, lines 54 to 58 and 77 and 78).

Accordingly, the Board is convinced that the skilled person, faced with the problem defined under 3.2, would be in a position to prepare a composition falling within the scope of claim 1 of the contested patent without inventive activity just by remaining within the teaching of document (11), in particular when the pesticide has a high activity.

In fact, in this latter case, the skilled person, starting from example 1 of document (11), would just have to lower the amount of 60 wt% of the active ingredient given in said example and increase the amount of filler accordingly, so that, depending on the activity of the pesticide used, he would obviously and inevitably end up with a composition according to the patent in suit.

- 3.5 The Board therefore does not agree with the two main arguments submitted by the appellant.

As to the argument relating to the VMD range of the kaolin clay given in claim 1 of the contested patent over the GTY clay from English China Clays used in example 1 of document (11), the Board must repeat its conclusions under 3.1 that, in the absence of any element showing that there exists at least one GTY clay from English China Clays having a VMD falling outside the scope of claim 1, this range cannot be regarded as a distinguishing feature over example 1 of document (11), in particular when the respondent has provided elements to the contrary.

Concerning the appellant's statement that there is an invention of selection in relation to the ease of granulation achieved when the claimed kaolin clay range of 35 to 80 wt% is used for preparing water dispersible granules, the Board can again only repeat its previous conclusions (see under 3.2) that, in the absence of any element demonstrating that a particular unexpected effect does occur within and only within a selected

range, such a range must be regarded as an arbitrary choice for which no inventive step can be acknowledged.

3.6 In the light of these facts, the Board can only conclude that the subject-matter of claim 1 of the main request does not involve an inventive step as required by Article 56 EPC.

Under these circumstances, there is no need to consider the remaining claims.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

A. Townend

U. Oswald