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D E C I S I O N
of 29 March 2006

Case Number: T 0316/03 - 3.3.05

Application Number: 97200001.2

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IPC: C05C 9/00

Language of the proceedings: EN

Title of invention:
Improved solubility compound fertilizer compositions

Applicant:
OMS INVESTMENTS, Inc.

Opponent:
-

Headword:
Urea phosphate fertilizer/OMS

Relevant legal provisions:
EPC Art. 54

Keyword:
"Novelty (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0316/03 - 3.3.05

D E C I S I O N
of the Technical Board of Appeal 3.3.05
of 29 March 2006

Appellant: OMS INVESTMENTS, Inc.
824 Market Street Mall
Suite 102A
Wilmington
Delaware 19801 (US)

Representative: Bentham, Stephen
J.A. KEMP & CO.
14 South Square
Gray's Inn
London WC1R 5JJ (GB)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 15 October 2002
refusing European application No. 97200001.2
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: M. Eberhard
Members: J.-M. Schwaller
H. Preglau

Summary of Facts and Submissions

- I. The appeal was lodged against the decision of the examining division to refuse the European patent application No. 97200001.2. The decision was based on two sets of amended claims filed respectively as main and first auxiliary requests during the oral proceedings of 5 September 2002.
- II. The examining division held that the subject-matter of claim 1 of the main request lacked novelty over commercially produced urea phosphate sold in particulate flowing form.

Claim 1 of the first auxiliary request was considered as lacking an inventive step in view of the teaching of D1 (FR-A-2235130) and taking into account that the production of solid fertilizers containing different solid fertilizing components to form particulate flowing complex fertilizers was undoubtedly known in the art.

- III. With the grounds of appeal dated 24 February 2003, the appellant filed as main and sole request an amended set of claims 1-9 along with an experimental report and five new documents. Claims 1 and 9 of this request are identical to claims 1 and 9 of the 1st auxiliary request on which the decision was based and read as follows:

"1. A particulate flowing solid complex fertiliser for dissolving in water to give a water-based precipitate-free phosphorous and micronutrient trace metal containing concentrated stock solution, said solid complex fertiliser comprising a solid urea phosphate as

the principal phosphorous source admixed with at least one nonchelated micronutrient trace metal salt, said fertiliser being obtainable by admixing solid urea phosphate with at least one nonchelated micronutrient trace metal salt.

*9. A method for producing a solid complex fertiliser, comprising the steps of:
providing a solid urea phosphate;
providing at least one nonchelated micronutrient trace metal salt; and
admixing said solid urea phosphate with said at least one nonchelated micronutrient trace metal salt to produce a solid complex fertiliser capable of being dissolved in water to give a water-based precipitate-free phosphorous and micronutrient trace metal containing concentrated stock solution, said solid complex fertiliser having said solid urea phosphate as the principal phosphorous source therein."*

- IV. In a communication, the board introduced the document D2 (GB-A-1590068) into the proceedings and *inter alia* raised an objection of lack of novelty based thereon in particular against claims 1 and 9.
- V. By fax dated 24 March 2006, the appellant withdrew its request for oral proceedings and asked that the procedure be continued in writing.
- VI. Oral proceedings took place on 29 March 2006 in the absence of the appellant.

VII. During the appeal procedure, the appellant presented principally the following arguments as regards the novelty issue with respect to D2:

D2 relates to enrichment of vegetable matter, and the process involved is the production of a liquid which is only dried after having been sprayed over the vegetable matter. It seems therefore that the flowable concentrate of the present invention (suitable for producing a concentrated stock solution) is never produced in D2. In the discussion of Example 1 on page 4, lines 1-4 of D2, it is specifically taught that the mixture produced therein is a paste and not a free flowing solid complex fertilizer as is claimed as an element of this invention. The passages referred to by the board in D2 which are alleged to indicate that a precipitate-free concentrate is produced merely refer loosely to the material being dissolved, but that term would be used in a bulk sense even if a small amount of precipitate were thrown (sic). Although reference is made to the ability of the liquid to be sprayed through the finest jets without blocking in the passage at page 1, lines 42-44, that must be read in conjunction with the preceding phrase which states that the liquid can be stored in tanks which are not agitated. The implication clearly is that if they were agitated then the liquid could no longer be sprayed, which is a clear teaching that a precipitate is produced. D2 contains no suggestion that the products formed therein could be used as fertilizers and merely describes use of the products for animal feeds. While in D2, it is necessary to dissolve the urea phosphate and the micronutrient metal salts in water and then to heat the resulting mixture, this step can be avoided in the present

invention. There is no teaching or suggestion in D2 that the resulting dissolved solution is or will remain "precipitate-free" over time.

VIII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed on 24 February 2003.

Reasons for the Decision

1. *Novelty*

1.1 D2 discloses (page 3, 2nd paragraph of Example 1; claim 4; page 2, lines 6-9) a solid composition comprising a solid urea phosphate as the principal phosphorus source admixed with nonchelated micronutrient trace metal salts, which composition is suitable for enriching cellulose vegetable matter after dissolution in water. In particular, said solid composition contains solid urea phosphate, urea, anhydrous ammonium sulphate and as the nonchelated micronutrient trace metal salts zinc sulphate heptahydrate, manganese sulphate monohydrate, copper sulphate pentahydrate and cobalt sulphate monohydrate; it thus comprises the components as defined in present claim 1. Furthermore, the solid composition is obtained by mixing the above ingredients in the form of crystallised salts.

As pointed out in the board's communication, it must be assumed that this solid composition is also in the form of flowing particles before its dissolution in water, taking into account that it is prepared by the same

method as that defined in present claim 9 and that furthermore the solid composition of present claim 1 may also contain urea (see page 5, lines 15-18 of the present application).

- 1.2 The appellant argued that the flowable concentrate of the present invention was never produced in D2. It is noted that no evidence, such as e.g. the reproduction of the solid composition of Example 1 of D2, was submitted in support of this allegation. D2, page 2, lines 6-9, in fact discloses that the simplest method for preparing the above composition consists in **mixing** appropriate amounts of the starting crystallised salts **before** dissolving them in the required amounts of water. Similarly, in Example 1, the crystallised salts of urea phosphate, urea, anhydrous ammonium sulphate, zinc sulphate heptahydrate, manganese sulphate monohydrate, copper sulphate pentahydrate and cobalt sulphate monohydrate are poured, in succession or **previously mixed before** being poured in water at ambient temperature. Thus, in the above embodiments of D2 wherein the ingredients of the composition are previously mixed before being poured into the water, the composition is, **before dissolution**, in a state wherein the solid particulates of crystallised salts are physically mixed together. In Example 1, the micronutrient salts of Zn, Mn, Cu, Co are furthermore in the same nonchelated form as required in the present application (see page 6, lines 10-12), namely as simple salts, especially nitrates or sulfates. The presence of urea or further sources of nitrogen being also contemplated at page 5, lines 15-18 and 25-27 of the present application, the board has no reason to believe that the physical mixture of the seven crystallised

salts disclosed in Example 1 of D2 (including urea and anhydrous ammonium sulphate as other sources of nitrogen) would not be flowing, before being poured in water.

The appellant further argued that in the discussion of Example 1 on page 4, lines 1-4 of D2, it was specifically taught that the mixture produced was a paste and not a free flowing solid complex fertilizer as claimed. The board observes that said paste is in fact obtained after pouring the crystallised salts into the water. The paste is thereafter completely dissolved and leads to a precipitate-free solution (see the considerations in point 2.4 below). Thus, this argument is inappropriate to demonstrate novelty, since it is in fact the mixture of crystallised salts (i.e. the composition before being poured into the water) which is opposed to the subject-matter of claim 1.

- 1.3 In its communication, the board indicated that the solid composition of D2 seemed to be also suitable for use as a solid complex fertilizer since it was capable of being dissolved in water to give a water-based precipitate free phosphorus and micronutrient trace metal containing concentrated solution. Reference was made to page 1, lines 42-44 and page 4, lines 1-8. The appellant disputed that a precipitate-free solution would be obtained by dissolving the solid composition of D2 in water. It argued that the passages referred to in the board's communication - which were alleged to indicate that a precipitate-free concentrate was produced - merely referred loosely to the material being dissolved, but that this term would be used in a bulk sense even if a small amount of precipitate were

thrown (sic). According to the appellant, although reference was made in the passage at page 1, lines 42-44 of D2 to the ability of the liquid to be sprayed through the finest jets without blocking, that had to be read in conjunction with the preceding phrase which stated that the liquid could be stored in tanks which were not agitated. The implication clearly was that if they were agitated then the liquid could no longer be sprayed, which was a clear teaching that a precipitate was produced.

These arguments are not convincing for the following reasons. The passage at page 1, lines 42-44 of D2 in fact reads: *"It is perfectly clear and fluid, can be stored in tanks which are not agitated, and can be sprayed without difficulty, and without blocking, through the finest jets"*, the word "It" referring to the aqueous liquid composition of the invention according to D2. Thus, this passage does not merely refer loosely to the material being dissolved but unambiguously points out that the liquid composition **is perfectly clear and fluid**. As regards the other passage cited by the board, namely in Example 1 on page 4, lines 1-8 of D2, it reads: *"Since dissolution is strongly endothermic, the paste is kept at ambient temperature **until dissolution is complete** by means of an external source of heat. Once dissolution has ended the temperature is raised to 60 °C, kept there for about ten minutes, and then the mixture is allowed to cool. In this way, a metric ton of **a clear, fluid liquor is obtained ...**"*. According to these passages, the complete dissolution leads to a perfectly clear and fluid liquor or liquid composition and it can neither be directly and unambiguously derived therefrom, nor

from the rest of the disclosure of D2, that precipitation occurs. The appellant's implication appears to be mainly based on an interpretation of the statements concerning agitation of the tanks and spraying at page 2, lines 43-44, while giving no importance to the teaching of the rest of the sentence (and also that of page 4, lines 1-8) that the liquid composition is perfectly clear and fluid. Accordingly, the appellant's interpretation that a precipitate would be formed does not convince the board. In this respect, it is noted that the appellant has also provided no evidence that reproducing Example 1 of D2 would lead to some precipitate, despite the unambiguous teaching thereof that complete dissolution occurs and that a clear and fluid liquor is obtained after cooling.

- 1.4 The appellant's argument that D2 contains no suggestion that the products formed therein could be used as fertilisers does also not convince the board that the claimed subject-matter is new, because claim 1 is not directed to the **use** of a particulate flowing solid complex composition **as a fertiliser** but to the fertiliser composition per se. Such an argument could be relevant if there were any reasons to believe that the compositions of D2 are not suitable for use as fertilisers. However, the solid composition disclosed in D2, which is used after dissolution in water for the enrichment of cellulose vegetable matter for animal feeding is capable of being completely dissolved in water to give a perfectly clear and fluid liquid composition which can be sprayed without difficulty and without blocking through the finest jets. Furthermore it comprises the same essential ingredients as the claimed fertiliser compositions and is prepared by the

same method as that indicated in claims 1 and 9. In addition no evidence was provided that precipitation would occur in Example 1 of D2. Under these circumstances, the board has no reason to believe that the solid composition of D2 would not be suitable for use as fertilizer and the appellant's argument cannot be accepted.

1.5 The other arguments put forward by the appellant that the present invention does not need a heating step and that the dissolved solution is or remains "precipitate-free" over time can also not support the presence of novelty because neither claim 1, nor process claim 9 excludes the presence of a heating step and there is also no limitation at all in the claims as to the period of time during which the stock solution is supposed to be precipitate-free.

1.6 For the above reasons, the subject-matter of claim 1 of this request lacks novelty over D2. The requirements of Article 54(1) and (2) EPC being not met, the present request is rejected.

2. *Request to continue the proceedings in writing*

After having been summoned to oral proceedings (to be held on 29 March 2006) the appellant requested by fax dated 24 March 2006 that the procedure be continued in writing. The board observes that this request was filed without any reasoning and that the appellant did not file any further set of amended claims as possible auxiliary request. Furthermore the period of 4 months given to the appellant for answering the communication of the board dated 13 May 2005 has been extended twice

to 8 months on the appellant's requests. Accordingly, it is considered that the appellant has had ample opportunity to comment and/or submit evidence on the issues to be decided. Continuing the procedure in writing instead of holding the oral proceedings at the fixed date would further delay the taking of a decision and thus be against the public interest and run counter to procedural expediency. For all these reasons, the request to continue the procedure in writing is refused.

Order

For these reasons it is decided that:

The appeal is dismissed

The Registrar:

The Chairman:

A. Wallrodt

M. Eberhard