

COMMISSIONER'S DECISION

OBVIOUSNESS:      Combatting Undesirable Aquatic Plant Life

Claims 1 to 23 were rejected as unpatentable over the cited art. In response the Applicant submitted a proposed new claim defining copper complexes which clears the art. Amended claims 1 to 15 are now based on this claim.

Rejection Affirmed - amended claims accepted.

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Patent application 209196 (Class 260-429.7), was filed on Sept. 13, 1974 for an invention entitled "Copper (II) Alkanolamine Complexes Useful As Algacides And Herbicides." The inventors are Carol B. Freedenthal et al, assignors to Kocide Chemical Corporation. The Examiner in charge of the application took a Final Action on May 1, 1980 refusing to allow it to proceed to patent.

The application is directed to a method and a copper complex for combatting undesirable aquatic plant life in a water locus.

In the Final Action the Examiner refused all of the claims in view of the following United States patents:

2,446,682	Aug. 10, 1948	Whitner
2,734,028	Feb. 7, 1956	Domogalla

These patents are directed to methods of combatting algae in water with a concentrated aqueous solution of copper.

In that action the Examiner had this to say (in part):

...

Claims 1 to 23 are rejected as being unpatentable in view of United States Patent 2,734,028. The method of combatting algae in water and a concentrated aqueous solution of copper (II) complex claimed in this application are clearly taught in column 1 last paragraph, column 2 lines 1 to 38 and lines 64 to 67 and claims 1, 3 to 6 and 8 of the United States Patent 2,734,028.

The paragraph bridging columns 1 and 2 and example 6 of United States patent 2,446,682 teaches that a portion of the water-insoluble copper hydroxide (or hydrated oxide) is dissolved in an aqueous solution of an alkylolamine and a solution of the alkylolamine-copper complex, which is substantially devoid of alkylolamine salts, is obtained. Therefore it is abundantly clear that copper (II) complex has been prepared from basic copper (II) salt which are water-insoluble and the said copper (II) complex is quite stable.

There is no indication in the applicant's disclosure that the dehydrated or crystalline forms of the prior art copper (II) complex have special advantages over the concentrated aqueous solution of the said complex. Therefore claims 18 to 23 are further rejected as being unpatentable in view of United States patents 2,446,682 and 2,734,028.

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In response to the Final Action the Applicant submitted a new claim 13 for consideration. He argued that this claim clearly avoids the cited references. He also had, inter alia, this to say:

...

It is submitted that in the present instance there is a preferred concentration making the complex particularly suitable for its intended purpose. The Examiner has relied on Example 6 of U.S. Patent 2,446,682 wherein a complex of copper hydroxide and triethanolamine is said to be obtained. In this Example 6 copper hydroxide is prepared by the addition of aqueous sodium hydroxide to copper sulphate. The obtained copper hydroxide is then isolated and reacted with triethanolamine. The copper content of the solution obtained according to Example 6 is, however, very low (0.9% of copper oxide per 100 cc), and the difference between the concentration of the basic copper salt solution (Example 6) with the copper concentration in the other examples, where acidic copper salts were used (2.5% in Example 1, 5.0% in Example 4 and 7.5% in Example 5) can be clearly seen as consistent with the apparent difficulties in working with the insoluble basic copper compound. Therefore claims such as claim 13 and its dependent claims which are clearly limited to a much higher concentration of copper than taught by the reference clearly overcome the reference. The concentration of 6 to 10% is particularly suitable for applicant's purpose. As U.S. Patent 2,446,682 does not describe these concentrations and gives no hint of applicant's purpose, it is submitted that this limitation is amply sufficient to impart patentability to the product claims.

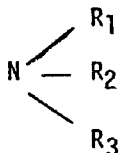
The Examiner's objection to claims such as claim 13 would seem to be that, as applicant's disclosure indicates a broader range of concentrations can be used, there is no invention in selecting a preferred concentration and that there has been an insufficient showing of special advantages to justify claims for the dehydrated or crystalline forms. This objection, as previously pointed out, is submitted to be based on an application of the wrong test. The test is not whether someone

knowing of applicant's invention would make up the compositions in these forms, the test is whether, as stated in Continental vs Short in the quotation reproduced at page xxi of the Commissioner's decision on Patent 1,014,068, whether the effect of the claims is to prevent anything being done that had been done or proposed previously. It has not been shown that U.S. Patent 2,446,682 discloses the products claimed in any of claims 13 to 20 or 22. There is also no disclosure in that patent of applicant's purpose. The results achieved by applicant are certainly unexpected to someone reading the teaching of U.S. Patent 2,446,682 which has an entirely different object. Therefore, these claims should be allowable over U.S. 2,446,682 in the absence of some other sound objection. There is no good reason to reject claims restricted to 6-10% which is a small range encompassing the example for which applicant has demonstrated unexpected superiority for purposes not even contemplated by U.S. 2,446,682.

...

The issue before the Board is whether or not the Applicant had made a patentable advance in the art. Proposed new claim 13 reads:

A storage-stable water soluble aqueous concentrate comprising a water solution of a complex of cupric hydroxide with a trialkanolamine of formula I,



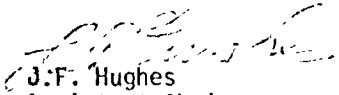
wherein R<sub>1</sub> is hydroxyalkyl (C<sub>2-10</sub>) and  
R<sub>2</sub> and R<sub>3</sub> are hydroxyalkyl (C<sub>2-8</sub>), the aggregate  
number of carbon atoms in R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> being  
C<sub>6</sub> to C<sub>10</sub>,

or with a mixture of a trialkanamine of formula I with a dialkanamine (C<sub>4-10</sub>), ratio of the trialkanamine or trialkanamine/dialkanamine mixture to cupric hydroxide being in the range of from 1.75 to 2.2:1, said solution containing from 6 to 10 percent by weight of elemental copper.

We have carefully reviewed the prosecution of this application and studied the cited art. It is our view that the Whitner patent, which broadly describes an alkanol amine-copper complex, does not specifically teach nor suggest the copper complexes of proposed claim 13. The same applies to the Domogalla patent.

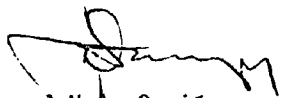
With this in mind we contacted the Agent, Mr. D. Watson, and discussed our views with him. On September 8, 1981 Mr. Watson cancelled all of the claims on file and submitted new claims 1 to 15 with claim 1 as the broadest claim and the same as proposed claim 13 discussed above.

No further discussion is therefore deemed necessary and we recommend that amended claims 1 to 15 be accepted.



J.F. Hughes  
Assistant Chairman  
Patent Appeal Board, Canada

I have reviewed the prosecution of this application and concur with the reasoning and findings of the Patent Appeal Board. Accordingly, I direct that prosecution should resume on the basis of the amended claims.



J.H.A. Gariépy  
Commissioner of Patents

Dated at Hull, Quebec

this 29th day of October, 1981

Agent for Applicant

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