

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN R. MATTOX

Appeal No. 94-4487
Application No. 08/006,021¹

ON BRIEF

Before KIMLIN, WEIFFENBACH and WALTZ, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-16, all the claims in the present application. Claim 1 is illustrative:

1. A method of preparing a stable, dilute solution of active ingredient consisting of 5-chloro-2-methyl-3-isothiazolone and, optionally, one or more additional 3-isothiazolone compounds, the

¹ Application for patent filed January 15, 1993.

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concentration of said active ingredient in said solution being about 0.5 to 5% by weight based on solution, comprising introducing about 0.1 to 5% by weight based on said solution, of a water soluble, non-chelated ferric salt as the stabilizer.

The examiner relies upon the following references as evidence of obviousness:

Miller et al. (Miller I)	3,870,795	Mar. 11, 1975
Miller et al. (Miller II)	4,067,878	Jan. 10, 1978
Petigara	4,310,590	Jan. 12, 1982
Law et al. (Law)	5,160,527	Nov. 3, 1992

Appellant's claimed invention is directed to a method of preparing a stable, dilute solution of 5-chloro-2-methyl-3-isothiazolone (CMI) comprising adding a water soluble, non-chelated ferric salt as the stabilizer. Appealed claims 9-16 are directed to a composition comprising the stabilized, dilute solution.

Appellant presents separate arguments for patentability for claims 2-6 and 14. Accordingly, claims 7-13, 15 and 16 stand or fall together.

Appealed claims 1-16 stand rejected under 35 U.S.C. § 112, first paragraph. In addition, claims 1, 5, 6, 8-10, 15 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Law, Miller I, Miller II and Petigara.

We have carefully reviewed the respective positions advanced by appellant and the examiner. In so doing, we will not sustain the examiner's rejection under 35 U.S.C. § 112, first paragraph.

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However, we fully concur with the examiner that the subject matter of claims 1, 5, 6, 8-10, 15 and 16 would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's § 103 rejection for essentially those reasons expressed in the Answer.

We consider first the examiner's rejection under 35 U.S.C. § 112, first paragraph. We do not agree with the examiner that the amendment to the specification changing "dilute aqueous solution" to "dilute solution" introduces new matter. Rather, we agree with appellant that one of ordinary skill in the art, upon reading the entirety of the original specification, would readily understand that the amended language "dilute solution" refers to an aqueous solution.

We also do not concur with the examiner that amending the language "consisting essentially of" at pages 3 and 4 of the specification to read "comprising" is new matter. The original specification, at page 3, lines 28-29, discloses that the object of the invention involves a stabilization method "comprising introducing about 0.1 to 5% by weight based on said solution, of a ferric salt." The term "comprising" provides original descriptive support for the amendment inasmuch as appellant's inventive method "comprises" introducing a ferric salt into a

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dilute solution. Also, it is evident from the original specification that the composition disclosed at page 3, lines 30-34, may also comprise an acid and an oxidant.

The examiner has also found that the appealed claims are not enabled by the specification insofar as the claims encompass a ferric salt of any anion, whereas the specification exemplifies only three specific anions and the prior art discloses that metal salts other than nitrates are ineffective. However, as pointed out by appellant, the present specification teaches that six specific ferric salts are effective, and it is our view that one of ordinary skill in the art would not have to resort to undue experimentation to determine which, if any, ferric salts are ineffective. It must be borne in mind that it is not the function of the claims to specifically exclude possible inoperable substances. In re Dinh-Nguyen, 492 F.2d 856, 858-59, 181 USPQ 46, 48 (CCPA 1974); In re Anderson, 471 F.2d 1237, 1242, 176 USPQ 331, 334-35 (CCPA 1973).

We now turn to the examiner's rejection under 35 U.S.C. § 103. We fully concur with the examiner that the disclosures of Law, Miller I, Miller II and Petigara evidence the prima facie obviousness of stabilizing a dilute solution of CMI by incorporating a water soluble, non-chelated ferric salt. Law teaches the use of water soluble ferric salts to stabilize dilute

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solutions of CMI (column 2, line 36; column 3, lines 49 and 50; column 4, line 18 and 46-60). We simply do not understand appellant's argument that "Law differs from the invention in that it does not teach water-soluble, non-chelated ferric salts as the stabilizer" (page 5 of Brief). As for appellant's argument that Law does not teach or suggest using the disclosed stabilizers for dilute solutions, we note that Law expressly teaches that at high levels of dilution of the isothiazolone the ratio of stabilizer to isothiazolone can range from about 1:7 to about 50:1 (column 4, lines 52-56). Also, see column 5, lines 40 et seq.

As explained by the examiner, Miller also discloses the use of ferric salts, such as ferric nitrate, to stabilize solutions of 3-isothiazolones. While appellant contends that Miller I and II teach the stabilization of concentrates, not dilute solutions, the examiner has properly noted that the Miller references provide no disclosure that ferric nitrate stabilizes only concentrated solutions of isothiazolones. Indeed, the Miller patents disclose that "the amount of metal nitrate or nitrite needed to stabilize the solution will be partly dependent on the solvent, the isothiazolone and its concentration . . ." (column 3, lines 33-36 of Miller II, emphasis added). We agree with the examiner that based on the disclosures of the Miller patents one of ordinary skill in the art would have found it prima facie

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obvious to select a water soluble, non-chelated ferric salt as a stabilizer for a dilute solution of CMI, as presently claimed. Also, as noted by the examiner, Miller II exemplifies the stabilization of a dilute non-aqueous solution.

Petigara also discloses the employment of ferric nitrate to stabilize dilute solutions of 3-isothiazolones. See column 3, line 6, for the disclosure of ferric nitrate and lines 22-27 for the teaching that the amount of metal nitrate needed to stabilize the solution is partly dependent on the concentration of the isothiazolone. Also, as pointed out by the examiner, dilute solutions of the 3-isothiazolone are taught in the sentence bridging columns 4 and 5.

As for separately argued claim 5, although appellant states at page 7 of the Brief that "ferric chloride is so surprising as a stabilizer," claim 5 encompasses the use of ferric nitrate which is specifically disclosed in the cited references.

Regarding separately argued claim 6, we agree with the examiner that it would have been obvious for one of ordinary skill in the art to prepare the dilute solutions from commercially available concentrates containing magnesium salts (see Miller II at column 3, line 19 and Law at column 5, line 63 for the disclosure of magnesium salts).

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Appellant cites EXAMPLE 3 of the present specification to demonstrate that, contrary to the teachings of the prior art, salts of magnesium, nickel, zinc, manganese, sodium and calcium do not stabilize dilute solutions of CMI, whereas the ferric salt does. However, the relevant issue is whether, based on the teachings of the prior art, the claimed invention utilizing ferric salt as a stabilizer would have been unobvious to one of ordinary skill in the art. Manifestly, the applied prior art teaches the use of the claimed ferric salt as a stabilizer in a dilute solution, and EXAMPLE 3 does not evidence unexpected results by demonstrating that the claimed ferric salt operates as taught by the prior art. While appellant's specification data may be unexpected to the extent that it demonstrates certain salts are ineffective, this is not relevant to the claimed subject matter.

In conclusion, based on the foregoing, the examiner's rejection under 35 U.S.C. § 112, first paragraph, is reversed. The examiner's rejection under 35 U.S.C. § 103 is affirmed. The examiner's decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

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EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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CAMERON WEIFFENBACH)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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)	
THOMAS A. WALTZ)	
Administrative Patent Judge)	

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Michael B. Fein
Rohm and Haas Co.
Independence Mall West
Philadelphia, PA 19105