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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHARLES A. STAETZ, HUI S. YANG, and HYLSA GARCIA¹

Appeal 2015-004717
Application 13/617,906
Technology Center 1600

Before RICHARD J. SMITH, RYAN H. FLAX, and
RACHEL H. TOWNSEND, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to an insecticidal composition. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Background

“Compositions containing two or more insecticides have been practiced in the art, but problems with the physical stability of such mixtures

¹ According to Appellants, the real party in interest is FMC Corporation. (Appeal Br. 2.)

in water have caused application and efficacy issues. . . . The physical stability of the formulation when diluted with water is a key problem in the art.” (Spec. 1, ll. 22–24 and 1, l. 33–2, l. 2.)

Claims on Appeal

Claims 36–38 and 29 are on appeal. (Claims Appendix, Appeal Br. 10.) Claim 36 is illustrative and reads as follows:

36. An insecticidal composition comprising:
- a) bifenthrin and *zeta*-cypermethrin present in a ratio of from 1/4 to 4/1 and in a total concentration of from 0.05% to 30%;
 - b) one or more aromatic solvent selected from alkylated naphthalene aromatic solvent and alkylated naphthalene depleted aromatic solvent present in a concentration of from 12% to 15%;
 - c) one or more nonionic polymeric surfactant present in a concentration of from 8% to 12%;
 - d) an antifoam agent in a concentration of from 0.001% to 1.5%;
 - e) a biocide present in a concentration of from 0.001% to 1.5%;
 - f) glycerine present in a concentration of from 5% to 10%; and
 - g) water present in a concentration of from 40% to 60%;
- wherein all % are % by weight based on the total weight of all the components in the formulation.

Examiner’s Rejection

Claims 36–38 and 29 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Martin,² Tank,³ and RED.⁴ (Ans. 4.)

² Martin et al., WO 01/70024 A2, published Sept. 27, 2001 (“Martin”).

³ Tank et al., US 2007/0027034 A1, published Feb. 1, 2007 (“Tank”).

⁴ EPA Reregistration Eligibility Decision (RED) Methylisothiazolinone, US Environmental Protection Agency, EPA738-R-98-012, Oct. 1998 (“RED”).

FINDINGS OF FACT

We adopt as our own the Examiner's findings and analysis concerning the scope and content of the prior art. The following findings are included for emphasis and reference convenience.

FF 1. The Examiner finds that Martin teaches the components and respective concentrations recited in claim 36, including the claimed aromatic solvent concentration of 12% to 15% because Martin teaches 1–50% and preferably about 4% to about 25% of aromatic solvent. (Ans. 4–5, citing Martin 6, ll. 9–19, 7, ll. 8–19, and 12, Ex. 10.)

FF 2. The Examiner finds that:

Martin does not explicitly disclose that the bifenthrin and zeta-cypermethrin [are] present in a ratio of from 1/4 to 4/1. However, as the combination of pesticides in Martin is not limited to a particular ratio, it is inclusive of this ratio. Alternatively, as Martin discloses the amount of pesticide to be a result-effective variable, it would be obvious to optimize the amount/ratio of pesticides in the formulation.

(Ans. 6.)

FF 3. Martin states that the term “pesticide,” as used therein, “refers to a molecule or combination of molecules” and includes insecticides.

(Martin 3, ll. 15–23.)

FF 4. Martin teaches that “the pesticide is selected from the group consisting of . . . zeta-cypermethrin, and bifenthrin.” (*Id.* at 15, ll. 3–11 (claims 1 and 2).)

DISCUSSION

Issue

Whether a preponderance of evidence of record supports the Examiner's conclusion of obviousness under 35 U.S.C. § 103(a).

Analysis

Appellants argue claims 36–38 and 29 as a group. (Appeal Br. 5–9.) Accordingly, we decide the appeal of claims 36–38 and 29 on the basis of claim 36.

We agree with the Examiner's conclusion of obviousness based on the cited prior art. (Ans. 4–7; FF 1–4; *see also* Office Action dated Mar. 26, 2014.) We address Appellants' arguments below.

As an initial matter, we find that claim 36 is obvious in view of Martin for the reasons set forth in the Answer (Ans. 4–12) and as discussed below. The Examiner relied upon Tank and RED to address dependent claim limitations. (*Id.* at 6–7.) We agree with the Examiner that Tank and RED are not necessary to support the obviousness rejection of claim 36.

Unexpected Stability

Appellants argue that the claimed invention “exhibits unexpectedly desirable stability” based on Examples 5 and 6 of the Specification. (Appeal Br. 5.) In particular, Appellants argue that Example 5 of the Specification (the subject of a dilution stability study in Example 6), having 13.63% by weight aromatic solvent, exhibited 0% separation after 24 hours at each of 0°C, ambient temperature, and 30°C. (Appeal Br. 5–7; Spec. 11, l. 16–12, l. 14.) According to Appellants, this result was “unexpected,” based on their reading of Martin as teaching “that it is beneficial to use as little organic

solvent in a formulation as is possible” (Appeal Br. 5), but disclosing in Example 11 the use of 37.3% by weight of the same aromatic solvent as was used in Appellants’ Example 5 containing an aqueous emulsion that includes bifenthrin. (*Id.* at 5–7.) Thus, Appellants conclude, “[o]ne of ordinary skill in the art would assume from a reading of Martin that a much greater amount of such solvent would be required” to obtain a stable composition comprising bifenthrin in Appellants’ Example 5 than 13.36%. (*Id.* at 7.)

We are not persuaded. Appellants focus on Example 11 of Martin to the exclusion of its broader disclosure regarding aromatic solvent concentrations is misplaced. *See In re Mills*, 470 F.2d 649, 651 (CCPA 1972) (“a reference is not limited to the disclosure of specific working examples”).⁵ Here, Martin teaches a specific range of aromatic solvent concentration that encompasses Appellants’ claimed range. (FF 1.) And we disagree with Appellants’ position (Appeal Br. 6–7) that Martin’s exemplification of 37.3% of an aromatic solvent with an aqueous emulsion of bifenthrin negates Martin’s teaching that the concentration range for aromatic solvents is about 1 to about 50%, and preferably about 4% to about 25%. (FF 1, citing Martin 6, ll. 9–19.)

Furthermore, Appellants do not offer any evidence that the use of from 12%–15% of an aromatic solvent achieves unexpected results. Unexpected results must be shown to be unexpected compared with the

⁵ The Examiner pointed out in the Office Action from which the appeal was taken that “the overall disclosure of Martin” is what is most pertinent, not Example 11. (Office Action dated Mar. 26, 2014, at 2.) Thus, we do not find this to be a “new issue” in the Examiner’s Answer, as alleged by Appellants in their Reply Brief. (Reply Br. 2.)

closest prior art (e.g., here, Martin). *See In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991). Appellants have offered no persuasive evidence or argument that the claimed solvent range of 12%–15% is critical to achieving stability or otherwise achieves unexpected results compared to Martin’s disclosed broader range. *See In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990) (citations omitted). In short, Appellants’ contentions regarding unexpected results amount to little more than attorney argument, which cannot take the place of evidence. *See Estee Lauder Inc. v. L’Oreal, S.A.*, 129 F.3d 588, 595 (Fed. Cir. 1997).

Example 10 of Martin

Appellants take issue with the Examiner’s reference to Example 10 of Martin and its use of only 2.72% aromatic solvent. (Appeal Br. 7; Reply Br. 2–3.)⁶ In particular, Appellants argue that “Example 10 is directed to a formulation of clomazone, a highly volatile compound which has very different physical properties from those of bifenthrin and/or zeta-cypermethrin.” (Appeal Br. 7.) Appellants also point to several patents “which discuss the unique issues relating to [clomazone].”⁷ (*Id.*) Appellants contend that “one of ordinary skill in the art would not consider formulations useful for clomazone when considering how to formulate bifenthrin and/or zeta-cypermethrin,” and that the Examiner’s rationale constitutes “impermissible hindsight.” (*Id.*)

⁶ The Reply Brief does not include page numbers, but we count the caption page as page 1 and the signature page as page 3.

⁷ Appellants refer to US Patent No. 5,597,780, US Patent No. 5,783,520 (“Anderson”), and US Patent No. 6,440,902. (Appeal Br. 7.)

We are not persuaded, and discern no error in the Examiner's reference to Example 10 of Martin. The Examiner refers to Martin Example 10 to point out that, while Appellants argue that Example 11 of Martin shows a higher amount of solvent than claimed by Appellants, Example 10 shows a lower amount of solvent than claimed. (Ans. 8.) In addition, the Examiner notes that "there is nothing in Martin[] which in any way limits this particular solvent amount to this particular herbicide," i.e. clomazone. (*Id.*) Furthermore, we note that the Anderson patent cited by Appellants discloses that the percentage range of solvent for use with clomazone microcapsules is "from about 10 to about 50 by weight." (Anderson, col. 2, ll. 44–46.)

We acknowledge, but are also unpersuaded by, Appellants' argument regarding "impermissible hindsight." (Appeal Br. 7.) Appellants point to no evidence that any of the Examiner's findings were beyond the level of ordinary skill in the art at the time of the invention or could have been taken only from Appellants' Specification. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971).

The Pesticide of Martin

Appellants argue that the percentages of components of the "recipe" identified at page 6 of Martin, particularly 4 to 25% of hydrocarbon solvent, apply to "**the** pesticide," and that the "recipe" of Martin "only contemplates the use of a single pesticide." (Appeal Br. 7–8, citing Martin 6, ll. 9–19.) This argument is buttressed by a reference to Martin's statement that "one or more additional pesticides" can be added to the pesticide formulation. (*Id.* at 8, citing Martin 7, ll. 20–25.) Appellants thus conclude that the addition of a

second pesticide would result in the “dilution” of Martin’s preferable range of solvent so as to be “far less than [Appellants’] claimed range of 12–15%” of aromatic solvent. (Appeal Br. 8.)

We are not persuaded. As the Examiner points out, the term pesticide in Martin “refers to a molecule **or combination of molecules**” (FF 3) and such pesticide “is selected from the group consisting of carfentrazone-ethyl, clomazone, permethrin, **zeta-cypermethrin, and bifenthrin**” (FF 4). (Ans. 10–11, citing Martin 3, ll. 15–16 and claim 2.) Moreover, as the Examiner also points out, the section of Martin identifying additional pesticides, relied on by Appellants, continues by identifying examples of those additional pesticides, none of which include any of the group of five pesticides identified above. (*Id.*, citing Martin 7, l. 25–8, l. 2.) Accordingly, Martin teaches that the ranges of pesticide formulation components, including the aromatic solvent, apply with respect to one or more of the five pesticides listed above, such as zeta-cypermethrin and bifenthrin.

For the reasons of record and as discussed above, we affirm the rejection of claim 36.⁸

Conclusion of Law

A preponderance of evidence of record supports the Examiner’s conclusion that claim 36 is obvious under 35 U.S.C. § 103(a). Claims 37, 38, and 29 were not argued separately and fall with claim 36.

⁸ Appellants also argue that the deficiencies of Martin are not cured by Tank and RED. (Appeal Br. 8–9.) However, this argument is inapt because we find no error in the Examiner’s reliance on Martin.

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SUMMARY

We affirm the rejection of all claims on appeal.

TIME PERIOD FOR RESPONSE

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

AFFIRMED