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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Includes application details for Gary P. Funkhouser and examiner information for RUNYAN, SILVANA C.

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* GARY P. FUNKHOUSER, FENG LIANG, RAJESH K. SAINI,  
JEREMY HOLTSCLOW, and LEWIS R. NORMAN

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Appeal 2014-007932  
Application 12/718,329  
Technology Center 3600

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Before LYNNE H. BROWNE, ANNETTE R. REIMERS, and  
BRENT M. DOUGAL, *Administrative Patent Judges*.

REIMERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Gary P. Funkhouser et al. (Appellants) appeal under 35 U.S.C.  
§ 134(a) from the Examiner's decision to reject claims 1–20 under 35 U.S.C.  
§ 103(a) as unpatentable over Feraud (US 6,613, 720 B1; iss. Sept. 2, 2003).  
We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

### CLAIMED SUBJECT MATTER

The claimed subject matter relates “to treatment fluids comprising a compliant dual-functional additive and a viscosifying agent, and methods of use employing such treatment fluids to treat subterranean formations.”

Spec. para 1. Claims 1, 9, and 15 are independent.

Claim 1 is illustrative of the claimed subject matter and recites:

1. A method comprising:
  - providing a treatment fluid comprising an aqueous base fluid, a viscosifying agent, and a compliant dual-functional additive; and
  - introducing the treatment fluid into at least a portion of the subterranean formation.

### ANALYSIS

Independent claim 1 calls for a method including the step of providing a treatment fluid having “a *compliant* dual-functional additive.” Appeal Br., Appendix A: Claims App. (emphasis added). The Examiner finds that Feraud discloses the method of claim 1 including a treatment fluid having “a dual-functional additive (Col. 12 lines 19-24) (i.e. ethyl formate).” Final Act. 2 (emphasis omitted).<sup>1</sup> The Examiner determines:

[T]he dual-functional additive [of Feraud] would obviously be a compliant [sic] as explained in the specification. If there is any difference between the treating fluid of Feraud and that of the instant claims, the difference would have been minor and obvious. “Products of identical chemical composition cannot have mutually exclusive properties”. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses [sic] and/or claims are necessarily present.

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<sup>1</sup> Feraud discloses: “Esters can be hydrolyzed to form acid and alcohol. Exemplary esters include methyl, ethyl and propyl formates.” Feraud, 12:26–28.

*Id.* at 2–3; *see also* Ans. 8.

Appellants contend that the Examiner’s “assertion attempts to read out the limitation of ‘compliant’ and is factually incorrect.” Appeal Br. 8.

Specifically, Appellants contend:

By definition, “compliant” materials [as defined in the Specification] meet much stricter safety and purity protocols than the non-compliant (bulk or chemical grade) materials. Certainly no one would suggest that “complaint” chemicals used, for example, to purify municipal water could simply be replaced with non-compliant versions of those chemicals with impunity. Rather, a reasonable person would have arrived at the conclusion that there is a chemically important distinction between the complaint and non-compliant versions of the ‘same’ chemicals that causes one to be safe for human contact while the other is not. Thus, the prior art does not “teach the identical chemical structure.” And the claimed materials are not “identical” to those disclosed in *Feraud*, thus *Feraud* does not teach the claimed **compliant** dual-functional additive.

*Id.*; *see also id.* at 7; Spec. para. 15.

At the outset, the Specification describes: “As used herein, the term ‘compliant’ refers to materials described in 21 CFR §§ 170-199 (substances approved as food items, approved for contact for food, or approved for use as an additive to food) and that are prepared from food-grade materials.” Spec. para 15.<sup>2</sup> The Specification further describes that (1) “the compliant dual-functional additives of the present invention may potentially eliminate the need for costly procedures needed to dispose of the treatment fluids containing non-compliant additives and may help reduce negative impacts

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<sup>2</sup> Appellants state that “the Specification is clear on its face . . . that ‘compliant’ refers to (‘means’) materials described in 21 CFR §§ 170-199.” Reply Br. 2.

on the marine environment and groundwater”; and (2) “compliant dual-functional additives according to the present invention may provide effective treatment of the formation without excessive damage caused by the use of multiple or non-compliant additives.” *Id.* at para. 16; *see also* Appeal Br. 7; Reply Br. 3. Where an explicit definition is provided by the applicant for a term, the definition will control interpretation of the term as it is used in the claim. *Toro Co. v. White Consolid. Industries, Inc.*, 199 F.3d 1295, 1301 (Fed. Cir. 1999). Further, claims are construed with an eye toward giving effect to all terms in the claim. *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006).

In this case, the Examiner’s interpretation of the “ethyl formate” of Feraud as “obviously [being] compliant,” essentially reads the term “compliant” out of the claims. *See* Appeal Br. 8. The Examiner fails to establish, by evidence or technical reasoning, that “the dual-functional additive” of Feraud necessarily has the “identical chemical structure” to the claimed “*compliant* dual-functional additive.” *See* Final Act. 2–3; *see also* Appeal Br. 8; Spec. para. 15; Appeal Br., Appendix A: Claims App. (emphasis added). Although food grade ethyl formate is well-known, the Examiner fails to establish, by evidence or technical reasoning, that the “ethyl formate” of Feraud is “compliant” ethyl formate (i.e., “a *compliant* dual-functional additive,” as claimed). *See* Ans. 9, 11; *see also* Reply Br. 3; Spec. para. 15; Appeal Br., Appendix A: Claims App. (emphasis added).

Similar to claim 1, independent claims 9 and 15 are directed to method claims including the step of providing a fracturing/treatment fluid having “a compliant dual-functional additive” (Appeal Br., Appendix A:

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Claims App.), and thus, the Examiner's findings with respect to Feraud are deficient for claims 9 and 15 as well. *See* Final Act. 5–7.

Accordingly, for the foregoing reasons, we do not sustain the Examiner's rejection of independent claims 1, 9, and 15 and their respective dependent claims 2–8, 10–14, and 16–20 as unpatentable over Feraud.

#### DECISION

We REVERSE the decision of the Examiner to reject claims 1–20 as unpatentable over Feraud.

REVERSED