

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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 ALAN P. LUNDSTEDT

Appeal No. 2003-0850
Application No. 09/334,366

ON BRIEF

Before SCHEINER, POTEATE and GREEN, Administrative Patent Judges.

POTEATE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 1-28, which are all of the claims pending in the application.

Claims 1 and 21 are representative of the subject matter on appeal and are reproduced below:

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1. A composite dispersing agent comprising an alkyl polyglycoside and a polymeric anionic dispersant.

21. The product of the process which comprises forming a blend by mixing solutions of an alkyl polyglycoside and a polymeric anionic dispersant and drying the blend.

The references relied upon by the examiner are:

Moorer et al. (Moorer)	3,986,979	Oct. 19, 1976
Garst (Garst '115)	5,550,115	Aug. 27, 1996
Garst (Garst '078)	5,559,078	Sep. 24, 1996
Pilato et al. (Pilato)	5,883,112	Mar. 16, 1999 (filed Jul. 02, 1998)

Grounds of Rejection

1. Claims 1, 4, 5, 7-9, 13, 16, 17, 19 and 20 stand rejected under 35 U.S.C. § 102(b) as anticipated by Garst '078.

We reverse.

2. Claims 2, 3, 6, 10-12, 14, 15 and 18 stand rejected under 35 U.S.C. § 103 as unpatentable over Garst '078 in view of Pilato and Garst '115.

We reverse.

3. Claims 21-28 stand rejected under 35 U.S.C. § 103 as being unpatentable over Garst '078, in view of Pilato and Garst '115 and further in view of Moorer.

We affirm.

Background

The invention relates to free-flowing granular dispersing agent for use in combination with an agricultural chemical formulation. Appeal brief, paper no. 17, received January 18, 2002, page 2. Appellant has discovered that the claimed composite dispersing agent (see claim 1) provides significant advantages over conventional wetting and dispersing agents which are added individually to pesticide formulations. See specification, page 2, lines 18-22. In particular, appellant has discovered that by drying together aqueous mixtures of alky polyglycosides and dispersing agents to form a dry, powdered composite dispersing agent, he achieves a product which may be used in granular or liquid-suspension agricultural chemical formulations to achieve outstanding attrition resistance, excellent dispersal ability after accelerated aging and a low moisture content when made into a paste. See *id.* lines 22-26.

Discussion

1. Rejection of claims 1, 4, 5, 7-9, 13, 16, 17, 19 and 20 under 35 U.S.C. § 102(b) as anticipated by Garst '078

Anticipation requires the disclosure, in a single prior art reference, of each element of the claim under consideration. **See *W.L. Gore and Assoc., Inc. v. Garlock, Inc.***, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983).

The principal argument advanced by appellant in traversing this ground of rejection is that Garst '078 fails to disclose a "composite" dispersing agent. See appeal brief, pages 3-4. According to appellant, Garst's disclosure of a product formed by combining solid-state forms of individual compounds and then granulating them together is not the same as, or equivalent to, the claimed "composite" dispersing agent. See *id.* Rather, the term "'composite' dispersing agent" is limited to a solid product formed by mixing *aqueous* alkyl polyglycoside and polymeric anionic dispersant compounds *followed by* drying the mixture. *Id.*

The examiner maintains that the dictionary defines a composite as "composed of a mixture or combination of two or more microconstituents or macroconstituents that differ in form and chemical composition, and are essentially insoluble in each other." Examiner's answer, paper no. 18, mailed March 11, 2002, page 7. Thus, it is the examiner's contention that although Garst '078 does not use the word "composite", his teaching of forming a composition by dry blending and milling Agrimul PG 2069 with calcium lignosulfonate achieves a "composite" dispersing agent as claimed. See *id.*, page 3.

During patent prosecution, claims are given their broadest interpretation consistent with the specification. **See, *In re Yamamoto***, 740 F.2d 1569, 1571, 222 USPQ 934, 936-37 (Fed. Cir. 1984). The present specification states as follows:

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In its broadest aspect, the present invention relates to liquid or granular dispersing agents for use in water-dispersible granule (WDG) or suspension concentrate agricultural chemical formulations which are composite substances comprised of an alkyl polyglycoside and a polymeric anionic dispersant. The granular composite dispersing agents are made by drying together aqueous mixtures of alkyl polyglycosides and dispersing agents to form a dry, powdered product providing significant advantages over conventional wetting and dispersing agents added individually to pesticide formulations. The granular composite dispersing agents according to the invention, which can be used in granular or liquid-suspension agricultural chemical formulations, exhibit outstanding attrition resistance, excellent dispersional stability after accelerated aging and low moisture content when made into a paste.

Specification, page 2, lines 14-26.

In giving the claims their broadest reasonable interpretation consistent with this disclosure, we are in agreement with appellant that the claim recitation of a "composite dispersing agent" is limited to a dispersing agent formed by drying an aqueous mixture of an alkyl polyglycoside and a polymeric anionic dispersant. Thus, the claims do not read on Garst '078's disclosure of a dispersing agent formed by combining individual already-dried compounds.

The rejection is reversed.

2. The rejection of claims 2, 3, 6, 10-12, 14, 15 and 18 under 35 U.S.C. § 103 as unpatentable over Garst '078 in view of Pilato and Garst '115

The examiner relies on Pilato for a teaching of a pesticidal composition which may contain salts of lignosulfonic acids and naphthalenesulfonic acids and which may further include various additives including polymer surfactants which include alkyl polyglycoside. Examiner's answer, page 4. The examiner relies on Garst '115 as

disclosing a composition containing alkyl polyglycosides and inert carriers in ratios which overlap those recited in the claims. However, as pointed out by appellant, none of the cited references disclose or suggest a “composite” dispersing agent as required by the claims.

Accordingly, the rejection is reversed.

3. The rejection of claims 21-28 as unpatentable under 35 U.S.C. § 103 over Garst '078, in view of Pilato and Garst '115 and further in view of Moorer

The examiner maintains that Garst '078, Pilato and Garst '115 disclose the invention as claimed with the exception of teaching a process of mixing aqueous solutions of alkyl polyglycosides and polymeric anionic dispersants. Examiner's answer, page 5. The examiner relies on Moorer for a teaching of a process of mixing wetting agents and dispersing agents together in solution and then drying them. Id., page 6. According to the examiner, it would have been obvious to one of ordinary skill at the time of the invention to have incorporated the teachings of Moorer into the invention of the combined references to achieve the claimed invention because

- a) Moorer et al. and the combined references are all directed to pesticides comprising sulfonated lignins and nonionic surfactants/wetting agents; b) Garst ('078) teaches that his composition can be formulated with or without solvents such as water and that it is within the skill of the artisan to determine specific amounts of adjuvants, such as solvents, to add to the composition; c) Moorer et al. teach making a wetting-dispersing agent by combining an aqueous mixture of a sulfonated lignin and a nonionic wetting agent and then drying the mixture to form a single product; hence, combining aqueous solutions of alkyl polyglycoside (nonionic surfactant/wetting agent) and lignosulfonate and drying the mixture, would be within the skill of one in the art.

Id.

Appellant first notes that neither Garst '078, Garst '115 nor Pilato discloses or suggests the use of a "composite" dispersing agent comprising an alkyl polyglycoside and a polymeric anionic compound. Appeal brief, page 5. Appellant then notes that while the Moorer reference is directed to a process of making a dispersing agent by combining sulfonated lignins and an aqueous surfactant, the reference fails to teach or suggest employing an alkyl polyglycoside as the "surfactant component". Id., pages 5-6. Finally, appellant urges that the examiner has failed to provide the requisite motivation for combining the teachings of Moorer with those of Pilato and the two Garst patents. Id., page 6.

Garst '078 discloses formulating compositions containing biologically active materials with polyhydroxy fatty acid amides as "dispersants and/or wetting agents." Column 2, lines 6-9. Garst '078 describes polyhydroxy fatty acid amides as a class of "nonionic surfactants". Garst '078 further states that "[o]ther surfactants may be used in combination with the polyhydroxy fatty acid amides in the composition according to the invention. . . . [e]specially, preferred nonionic surfactants which can be used . . . are alkyl polyglycosides." Column 5, lines 47-54. Moorer discloses forming a "single surfactant" by combining wetting agents and dispersing agents in solution and then drying them together. See column 3, line 45 - column 4, line 38. According to Moorer, "[d]rying the wetting agent-dispersing agent mixture greatly improves the performance

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of wettable powders and produces dramatic efficiencies in formulation.” In particular, Moorer teaches combining a sulfonated lignin as the dispersing agent with a wetting agent which includes nonionic wetting agents. See column 2, line 19 - column 3, line 44.

Given Moorer’s disclosure that his single surfactant provides advantages which are superior to those of the wetting agents or dispersing agents individually or mixed together, we are in agreement with the examiner that one of ordinary skill in the art, in considering Garst ‘078 would have been motivated to have formed a product comprising a blend by mixing aqueous solutions of alkyl polyglycosides and a polymeric anionic dispersant and then drying the blend to thereby achieve the invention of claim 21. In so concluding, we note that claim 21 unlike claim 1, does not specifically recite “a composite dispersing agent” and that the use of the open-ended term “comprising” does not preclude the presence of additional components in the aqueous blend.

This rejection is affirmed.

In sum, the rejections of claims 1-20 are reversed and the rejection of claims 21-28 is affirmed.

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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

TONI R. SCHEINER)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
LINDA R. POTEATE)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
LORA M. GREEN)	
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