

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte SURESH DESAI and
JOHN F. HESSEL

Appeal No. 2001-1154
Application No. 08/482,579

ON BRIEF¹

Before WINTERS, ADAMS and GREEN, Administrative Patent Judges.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

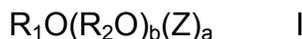
This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, 3-11, 13-18 and 20-25, which are all the claims pending in the application.

Claim 1 is illustrative of the subject matter on appeal and is reproduced below:

1. An iodine complex concentrate comprising :
 - (a) from about 0.5 to about 30% by weight of iodine;

¹ Appellants waived their request for oral hearing. Accordingly, we considered this appeal on Brief.

- (b) from about 0.2 to about 14% by weight of an iodide component selected from the group consisting of iodide salt, iodide acid and mixtures thereof; and
- (c) from about 2% to about 85% by weight of an alkyl polyglycoside having the formula I;



wherein R_1 is a monovalent organic radical having from about 6 to about 30 carbon atoms; R_2 is a divalent alkylene radical having from 2 to 4 carbon atoms; Z is a saccharide residue having 5 or 6 carbon atoms; b is a number having a value from 0 to about 12; a is a number having a value from 1 to about 6, all weights being based on the weight of the concentrate.

The references relied upon by the examiner are:

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| Shetty | 4,576,818 | Mar. 18, 1986 |
| McCurry, Jr., et al. (McCurry) | 5,266,690 | Nov. 30, 1993 |

Lennette et al. (Lennette), Manual of Clinical Microbiology, 4th Edition, American Society for Microbiology, p. 132 (1985)

GROUND OF REJECTION

Claim 22 stands rejected under 35 U.S.C. § 112, second paragraph, as lacking antecedent basis for the phrase "said aqueous antimicrobial use composition."²

Claims 1, 3-11, 13-18 and 20-25 stand rejected under 35 U.S.C. § 103 as being unpatentable over appellants' acknowledged prior art in view of Lennette, Shetty and McCurry.

We affirm the rejection under 35 U.S.C. § 112, second paragraph and reverse the rejection under 35 U.S.C. § 103.

² We note that the rejection of claims 4, 14 and 21 was withdrawn (see Paper No. 17) in response to appellants' amendments. See Reply Brief, Appendix of Claims.

DISCUSSION

THE REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH:

According to appellants (Reply Brief, page 3), “the term ‘use’ had previously been deleted from the claim in Applicant’s [sic] Amendment Under Rule [§] 116, which was to be entered upon filing of an appeal.” Contrary to appellants’ argument, no amendment addressing the term “use” was made to claim 22. See Paper No. 17.

Accordingly we affirm the rejection of claim 22 under 35 U.S.C § 112, second paragraph.

THE REJECTION UNDER 35 U.S.C. § 103:

According to the examiner (Answer, page 3), appellants specification acknowledges that alkyl polyglycosides are known surfactants, and that iodine is a well known antimicrobial that has been formulated or complexed with a variety of adjuvants. The examiner supplements this finding with Lennette and Shetty.

With regard to Lennette, the examiner finds (Answer, page 4) the reference teaches “the well established knowledge that detergents are typical carriers for iodine in an iodophor....” We recognize that Lennette does teach detergents as a carrier, however, Lennette also teaches quaternary ammonium compounds and polyvinylpyrrolidone. See Lennette, page 132, column 2. As appellants point out (Brief, page 5), “the term ‘detergent’ is extremely broad and includes many compounds such as nonionic surfactants, anionic surfactants, cationic surfactants, detergent builders, sequestering agents, etc. Iodine cannot complex with every detergent component known in the art.”

Regarding Shetty, the examiner finds (Answer, page 4) the patent discloses “that iodides are used to solubilize the insoluble iodine ... and [a] myriad [of] organic polymers are known to be useful for complexing iodine to result in iodophors.” The examiner emphasizes that Shetty disclose a “broad variety of detergent/surface-active polymers’ may be used for the iodophor (column 3, lines 1-3).” We note that the examiner finds support for his reliance on Shetty in the background section of the Shetty patent. In the last paragraph of this background section, Shetty discloses “[a]s noted above, the most suitable polymer for the formation of iodophors is polyvinylpyrrolidone^[3], which is the only nondetergent, nonionic organic polymer suitable for the formation of antiseptic iodophors.” Shetty, column 3, line 67 – column 4, line 2. Based on this observation, Shetty discloses (column 4, lines 5-9), “a primary object of the present invention [is] to provide a new nondetergent, nonionic polymer which can form complexes with elemental iodine to provide highly effective iodine-containing germicidal preparations.” As appellants point out (Brief, page 5), Shetty “relates to the complexing of iodine with a poly[dextrose or a polymer resulting from the copolymerization of sucrose and epichlorohydrin. These molecules are not surface-active agents, such as the alkyl polyglycoside of the present invention, but are merely nonionic polymers.”

While the examiner does not so state, neither Lennette nor Shetty teach alkyl polyglycosides as required by appellants’ claimed invention. To make up for this deficiency the examiner relies on McCurry. According to the examiner

³ We note as set forth above, that polyvinylpyrrolidone is one of the three carriers taught by Lennette.

(Answer, page 4), McCurry discloses “alkyl polyglycosides are known for their detergent and surfactant functionalities ...” and “can be made to have ‘maximum stand-alone surfactant properties....’” The examiner finds (Answer, page 7), “the precise meaning of the [phrase maximum stand-alone surfactant properties] ... is that the alkyl polyglycosides are so excellent in their surfactant properties that they do not require additional surfactants.” See e.g., McCurry, column 3, lines 51-55. However, as appellants point out (Brief, page 6), “[t]he phrase ‘maximum stand-alone surfactant properties’ is ... neither synonymous with, nor analogous to the formation of an iodine complex using alkyl polyglycosides.” According to appellants (id.), McCurry “fails to contain any teaching, suggestion or motivation relating to the formation of iodine complexes using alkyl polyglycosides.”

Nevertheless, based on the evidence of record, the examiner finds (Answer, page 5), “one having ordinary skill in the art would have been motivated to formulate an iodophor with a good stand alone detergent such as the instant alkyl polyglycoside, as claimed with the expectation that the resulting iodophor would provide antimicrobial efficacy.” While the examiner recognizes (Answer, page 7) appellants’ argument “that iodine cannot complex with every detergent, the [e]xaminer’s position is that iodine would have been expected to complex with a detergent-surfactant that has such excellent surfactant properties as formula I alkyl polyglycosides, in view of prior art teachings of iodine complexing with ‘broad variety of detergent/surface-active polymers.’”

To establish a prima facie case of obviousness, there must be both some suggestion or motivation to modify the references or combine reference teachings and a reasonable expectation of success. In re Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). On this record, we find neither a suggestion to modify the reference nor a reasonable expectation of success. There is no evidence on this record that alkyl polyglycoside is the type of detergent (Lennette), or detergent/surface-active agent (Shetty) that can act as a carrier for iodine. As appellants point out, that a broad variety of detergents/surface-active agents can act as carriers for iodine does not mean that every detergent or surface-active agent can do so. The examiner failed to present any evidence that alkyl polyglycoside can be a carrier for any molecule, or that alkyl polyglycoside is so similar to the prior art detergents that one could reasonably expect it to act as a carrier. To the contrary, the examiner has emphasized the differences between alkyl polyglycoside and other prior art detergents/surface-active agents, specifically that alkyl polyglycoside has maximum stand-alone surfactant properties, thus requiring minimal, if any, formulations with other surfactants, as typically required in the past. See McCurry, column 3, lines 51-55. Therefore, we find no suggestion in the prior art relied upon to combine McCurry with Lennette and Shetty.

In addition, because the examiner failed to identify a nexus, e.g., structural similarity, other than its surface-active properties, between the claimed alkyl polyglycoside and the prior art iodine carriers, we find no reasonable expectation of success in utilizing alkyl polyglycoside as a carrier for iodine. In

the absence of a reasonable expectation of success one is left with only an “obvious to try” situation which is not the standard of obviousness under 35 U.S.C. § 103. In re O’Farrell, 858 F.2d 894, 903, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988).

Accordingly, we reverse the rejection of claims 1, 3-11, 13-18 and 20-25 under 35 U.S.C. § 103 as being unpatentable over appellants’ acknowledged prior art in view of Lennette, Shetty and McCurry.

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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| Sherman D. Winters |) | |
| Administrative Patent Judge |) | |
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| |) | BOARD OF PATENT |
| Donald E. Adams |) | |
| Administrative Patent Judge |) | APPEALS AND |
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| Lora M. Green |) | |
| Administrative Patent Judge |) | |

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