Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte UDO HEES, EVA KIEWERT and RAINER ESKUCHEN

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Appeal No. 2001-2434
Application No. 08/761,467

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ON BRIEF

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Before OWENS, LIEBERMAN, and DELMENDO, *Administrative Patent Judges.*

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal is from the final rejection of claims 1-4, which are all of the claims in the application.

THE INVENTION

The appellants claim a hard surface cleaning composition containing a specified alkyl oligoglucoside, and a method for increasing the viscosity and foam of a hard surface composition by including this alkyl oligoglucoside in the composition.

Claim 1, directed toward the composition, is illustrative:

> 1. In a hard surface cleaning composition which comprises one or more anionic, nonionic, amphoteric or zwitterionic surfactants or combination thereof the improvement comprising from about 1 to about 50% by weight of alkyl oligoglucosides corresponding to formula (I):
>
> $$R^1O-[G]_p \qquad (I)$$
>
> wherein R^1 is an at least partly branched alkyl radical having from about 9 to about 11 carbon atoms, G is a glucose unit and p is a number from 1.4 to 2.0, and wherein the alkyl oligoglucosides are derived from C_{9-11} oxoalcohols obtained from terminal linear olefins.

THE REFERENCE

Wolf et al. (Wolf)	5,585,472	Dec. 17, 1996 (§ 102(e) date Feb. 1, 1995)

THE REJECTION

Claims 1-4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Wolf.

OPINION

The appellants' independent claims are in Jepson format. Hence, the preamble of each of these claims is impliedly admitted prior art. *See Rowe v. Dror*, 112 F.3d 473, 479, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). Accordingly, it reasonably appears that it was known in the art to include one or more anionic, nonionic,

amphoteric or zwitterionic surfactants or a combination thereof in a hard surface cleaner.

Wolf teaches that "[s]urface-active alkyl glycosides, which are mainly used for detergents and cleaners, have been known for a long time" (col. 1, lines 7-9), and discloses alkyl glycosides which are useful as surfactants in detergents and cleaners (col. 2, lines 19-21). The alkyl glycosides have the formula $RO(G)_m$, where G is a saccharide unit, preferably glucose, R is an aliphatic radical with 1 to 30 carbons, and m is 1 to 12 (col. 1, lines 62-64, col. 2, lines 10-11 and 65-68). "The value of m should be as small as possible because the alkyl polyglycosides which are produced in minor amounts in the reaction have less detergent power than the alkyl monoglycosides. The value of m is therefore preferably from 1.1 to 1.5" (col. 3, lines 1-5). The alcohols disclosed as being suitable for forming the alkyl glycosides by reaction with monosaccharides or compounds which form monosaccharides under the reaction conditions include oxoalcohols, one of the exemplified oxoalcohols being Dobanol® 91 (col. 2, line 59), which is the appellants' preferred oxoalcohol (specification, page 3, line 26 - page 4, line 2). The

appellants acknowledge that their alkyl oligoglucoside falls within the genus disclosed by Wolf (reply brief, page 12).

The appellants argue that Wolf states that natural fat-derived alcohols are preferred, and that one of ordinary skill in the art would not have been motivated to select the non-preferred oxoalcohols (reply brief, page 7). This argument is not well taken because the reference is not limited to its preferred embodiments. *See In re Kohler*, 475 F.2d 651, 653, 177 USPQ 399, 400 (CCPA 1973); *In re Mills*, 470 F.2d 649, 651, 176 USPQ 196, 198 (CCPA 1972); *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

The appellants argue that Wolf teaches away from a degree of polymerization of 1.4 to 2.0 because he teaches that alkyl monoglycosides have more detergent power than alkyl polyglycosides (brief, pages 9-10). Consequently, the appellants argue, Wolf would have led one of ordinary skill in the art to produce alkyl monoglycosides (reply brief, page 7). After disclosing that alkyl monoglycosides have more detergent power than alkyl polyglycosides, however, Wolf teaches that the degree of polymerization preferably is 1.1 to 1.5 (col. 3, lines 1-5).

This teaching would have rendered *prima facie* obvious to one of ordinary skill in the art the portion of Wolf's preferred range which overlaps the appellants' range of 1.4 to 2.0. *See In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

For the above reasons, we are not convinced by the appellants' arguments that Wolf would have failed to render the appellants' claimed combination of the specified alkyl oligoglucoside and at least one conventional surfactant *prima facie* obvious to one of ordinary skill in the art.

The appellants argue that the data in table 1 of their specification (page 8) shows that the claimed invention produces unexpectedly superior results (brief, pages 6-9; reply brief, pages 9-12). This data show that C_{9-10} alkyl oligoglucosides having a degree of polymerization of 1.43 to 1.60 give a cleaning power reflectance of 58 to 66 percent, whereas C_{8-10} alkyl oligoglucosides having a degree of polymerization of 1.38 to 1.59 give a cleaning power reflectance of 47 to 48 percent, a C_{9-10} alkyl oligoglucoside having a degree of polymerization of 1.32 gives a cleaning power reflectance of 49 percent, and a C_8 alkyl

oligoglucoside having a degree of polymerization of 1.60 gives a cleaning power reflectance of 51 percent.

The examiner argues that "there appears to be no comparative composition in Table 1 reasonably representative of Wolf et al., considered to be the closest prior art of record" (answer, page 7). In Wolf's examples a C_{8-10} fatty alcohol mixture is reacted with a glucose syrup, and the degree of polymerization is not reported. The examiner has not explained why the appellants' comparative C_{8-10} alkyl oligoglucosides having a degree of polymerization of 1.38 to 1.59 are not at least as close as the alkyl glucoside in Wolf's examples to the appellants' alkyl oligoglucoside.

The examiner argues that "the inventive compositions in instant Tables 1 [sic] cannot be considered commensurate in scope [with the appellants' claims], since very specific types of surfactants are used in very specific amounts, whereas none of the present claims appear to be so limited" (answer, page 7). For the following reasons this argument is not convincing.

First, the appellants' claims are limited to alkyl oligoglucosides derived from C_{9-11} oxoalcohols. The appellants'

tests of the claimed invention use C_{9-10} alkyl oligoglucosides, and the data show results which are substantially superior to those obtained using C_{8-10} alkyl oligoglucosides, i.e., alkyl oligoglucosides which include a shorter-chain C_8 component. Thus, it reasonable appears that C_{9-11} alkyl oligoglucosides, which include a longer-chain C_{11} component, would produce results which are at least as good as those obtained using C_{9-10} alkyl oligoglucosides.

Second, although the appellants' tests do not include C_{9-10} alkyl oligoglucosides having a degree of polymerization above 1.60, the data show that as the degree of polymerization increases from 1.43 to 1.60, the cleaning power reflectance increases from 58 to 66 percent. That is, there is a trend of improved cleaning power reflectance as the degree of polymerization increases. It reasonably appears, therefore, that the tested alkyl oligoglucosides are representative of alkyl oligoglucosides having a degree of polymerization of 1.4 to 2.0. *See In re Kollman*, 595 F.2d 48, 56, 201 USPQ 193, 199 (CCPA 1979).

Third, the appellants' comparison includes only one alkyl oligoglucoside concentration (7 wt%), and does not include alkyl oligoglucoside concentrations ranging from about 1 to about 50 wt%. However, it reasonably appears that if the alkyl oligoglucoside concentration were increased above the 7 wt% used in the appellants' tests, the improvement in cleaning power reflectance of the appellants' alkyl oligoglucoside over the comparative alkyl oligoglucosides would, if anything, increase. Also, the examiner has not provided evidence which shows that any particular alkyl oligoglucoside concentration, such as a concentration below 7 wt%, would have been *prima facie* obvious to one of ordinary skill in the art, or that a substantial improvement in cleaning power reflectance such as that shown by the appellants would not be obtained if the alkyl oligoglucoside concentration were below 7 wt%.

For the above reasons the record indicates that the appellants' data are sufficient for overcoming the *prima facie* case of obviousness of the claimed invention over Wolf.

DECISION

The rejection of claims 1-4 under 35 U.S.C. § 103 over Wolf is reversed.

REVERSED

TERRY J. OWENS Administrative Patent Judge	)	
PAUL LIEBERMAN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ROMULO H. DELMENDO Administrative Patent Judge	)	

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