

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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* LANI S. KANGAS, MIECZYSLAW H. MAZUREK, KURT C. MELANCOM,  
WALTER R. ROMANKO, and AUDREY A. SHERMAN

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Appeal No. 2002-0250  
Application No. 08/930,771

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ON BRIEF

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Before GARRIS, TIMM, and MOORE, *Administrative Patent Judges*.  
TIMM, *Administrative Patent Judge*.

***DECISION ON APPEAL***

This appeal involves claims 1, and 3-13, 15-17, and 19. The only other claims pending in the application, claims 14 and 18, are not subject to rejection. We have jurisdiction under 35 U.S.C. § 134.

### ***THE CLAIMED SUBJECT MATTER***

Our primary focus, for purposes of this appeal, will be on the subject matter of claim 1.

Claim 1 reads as follows:

1. A tackified composition comprising (a) a polydiorganosiloxane polyurea segmented copolymer comprising the reaction product of (i) at least one polyamine, wherein the polyamine comprises at least one polydiorganosiloxane diamine, or a mixture of at least one polydiorganosiloxane diamine and at least one organic polyamine, and (ii) at least one polyisocyanate [sic: polyisocyanate] , wherein the mol ratio of isocyanate to amine present during synthesis of the reaction product was between 0.9:1 and 0.95:1 or between 1.05:1 and about 1.3:1, and (b) silicate resins.

### ***THE EVIDENCE***

As evidence of unpatentability, the Examiner relies upon the following prior art reference:

Leir et al. (Leir)WO 95/03354Feb. 02, 1995  
(Int'l Patent Application Publication)

### ***THE REJECTIONS***

Claims 3-5 and 19 stand rejected under 35 U.S.C. § 112, ¶ 2 as indefinite. Claims 1, 3-13, 15-17, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leir. We reverse the decision of the Examiner with respect to the rejection under § 112, ¶ 2, but we affirm with respect to the rejection under § 103(a). Our reasons follow.

## ***OPINION***

### ***Indefiniteness***

The Examiner rejects claims 3-5 and 19 under 35 U.S.C. § 112, ¶ 2. According to the Examiner, the use of the term “substituted” in claim 3 renders that claim, and the claims dependent thereon, indefinite in the absence of specifying the substituents (Answer at 3). For the reasons presented in the Brief (at 4-5) and the following reasons, we do not agree.

In determining whether the language of claim 3 is sufficiently definite, we must analyze whether “one skilled in the art would understand the bounds of the claim when read in light of the specification.” *Personalized Media Communications, LLC v. Int’l Trade Comm’n*, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998). From a practical point of view, the claims serve a notice function serving to warn others of what constitutes infringement. *Morton Int’l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir. 1993). In regard to a composition claim, the claim must give clear notice of what compositions are within the scope of the claim. *See PPG Indus., Inc. v. Guardian Indus. Corp.*, 75 F.3d 1558, 1562, 37 USPQ2d 1618, 1622 (Fed. Cir. 1996). “The degree of precision necessary for adequate claims is a function of the nature of the subject matter.” *Exxon Research and Eng’g Co. v. US*, 46 Fed. Cl. 278, 283, 54 USPQ2d 1519, 1521-22 (Fed. Cl. 2000).

The claim need not list every possible substituent for one of ordinary skill in the art to know what is within the scope of the claim: every possible R group substituent is included. If a compound has a polydiorganosiloxane polyurea segmented copolymer repeating unit which meets the requirements set forth in claim 3, that compound is within the scope of the claim. For the case when R is a substituted alkyl moiety having about 1 to 12 carbon atoms, any such alkyl group with any or all of its hydrogen atoms replaced with other atoms is encompassed by the claim. The claim may be broad in terms of possible R groups, but that alone does not make the claim indefinite. One of ordinary skill in the art would understand the bounds of the claim.

***The Rejection over Leir***

With regard to the rejection of claims 1, 3-13, 15-17, and 19 under 35 U.S.C. § 103(a) as unpatentable over Leir, Appellants state that the claims stand or fall together (Brief at 3). We select claim 1 to decide the issues on appeal with respect to this rejection.

Claim 1 is directed to a composition in which one of the components, a polydiorganosiloxane polyurea segmented copolymer, contains a mol ratio of isocyanate to amine present during synthesis of the reaction product of between 0.9:1 and 0.95:1 or between 1.05:1 and about 1.3:1. According to Appellants, these ratios translate to amine to isocyanate ratios of 1:0.9 to 1:0.95 and 1:1.05 to 1:1.3 (Brief at 5). The Examiner finds that Leir describes a

polydiorganosiloxane polyurea segmented copolymer with an amine to isocyanate ratio of 1:0.95 to 1:1.05 (Answer at 3). Appellants do not disagree (Brief at 5).

Not only does the range of the prior art about the claimed ranges, but it is squarely in the middle of the two ranges of the claim. Recently, the Federal Circuit reaffirmed the long standing principle that where the ranges of the prior art overlap or are so close that one of ordinary skill in the art would expect to obtain the same properties, a *prima facie* case of obviousness is established. See *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003)(citing e.g., *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (CCPA 1976)(concluding that a claimed invention was rendered obvious by a prior art reference whose disclosed range (“about 1-5%” carbon monoxide) abutted the claimed range (“more than 5% to about 25%” carbon monoxide)); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974)(concluding that a claimed invention was rendered *prima facie* obvious by a prior art reference whose disclosed range (0.020-0.035% carbon) overlapped the claimed range (0.030-0.070% carbon)); *In re Geisler*, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997)(acknowledging that a claimed invention was rendered *prima facie* obvious by a prior art reference whose disclosed range (50-100 Angstroms) overlapped the claimed range (100-600 Angstroms)); and *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 783, 227 USPQ 773, 779

(Fed. Cir. 1985)(concluding that a claim directed to an alloy containing “0.8% nickel, 0.3% molybdenum, up to 0.1% maximum iron, balance titanium” would have been *prima facie* obvious in view of a reference disclosing alloys containing 0.75% nickel, 0.25% molybdenum, balance titanium and 0.94% nickel, 0.31% molybdenum, balance titanium).

Here, the compositional ranges of the claim surround the prior art range. In such a situation, one of ordinary skill in the art would have expected compositions with ratios within the claimed ranges to have the same or similar properties as compositions with ratios within the prior art range. *See Titanium Metals*, 778 F.2d at 783, 227 USPQ at 779. We conclude that the Examiner has established a *prima facie* case of unpatentability with respect to the subject matter of claim which has not been sufficiently rebutted by Appellants.

### ***CONCLUSION***

To summarize, the decision of the Examiner to reject claims 1, 3-13, 15-17, and 19 under 35 U.S.C. § 103(a) is affirmed and to reject claims 3-5 and 19 under 35 U.S.C. § 112, ¶ 2, is reversed.

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

AFFIRMED

BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
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	)	
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	)	BOARD OF PATENT
CATHERINE TIMM	)	APPEALS
Administrative Patent Judge	)	AND
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JAMES T. MOORE	)	
Administrative Patent Judge	)	

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