

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

ROHM AND HAAS COMPANY : CIVIL ACTION
 :
 v. :
 :
 LONZA, INC. and SUNKYONG :
 INDUSTRIES LIMITED : NO. 96-CV-5732

M E M O R A N D U M

Ludwig, J.

October 30, 1998

Plaintiff Rohm and Haas Company and defendants Lonza, Inc. and Sunkyong Industries Limited cross-move for partial summary judgment in regard to allegations of literal infringement of plaintiff's patent.¹ Fed. R. Civ. P. 52.²

The patent claims in question involve biocidal chemicals used in pesticides. In 1994, plaintiff Rohm and Haas Company was issued U.S. Patent No. 5,312,827 ('827 patent). In this action, Rohm and Haas contends that pesticides developed by defendant Sunkyong and marketed by defendant Lonza constitute literal infringements of the '827 patent. Jurisdiction is federal question, 28 U.S.C. § 1331 (1994), and is exclusive in patent actions, 28 U.S.C. § 1338(a) (1994).

¹These motions relate only to literal infringement. Infringement under the doctrine of equivalents is not raised or considered.

²"[S]ummary judgment should be granted if, after drawing all reasonable inferences from the underlying facts in the light most favorable to the non-moving party, the court concludes that there is no genuine issue of material fact to be resolved at trial and the moving party is entitled to judgment as a matter of law." Kornegay v. Cottingham, 120 F.3d 392, 395 (3d Cir. 1997) (quoting Spain v. Gallegos, 26 F.3d 439, 446 (3d Cir. 1994) (citations omitted)).

Literal infringement proceedings involve two steps. First, the claims in question must be construed for scope and meaning. See Markman v. Westview Instruments, Inc., 517 U.S. 370, 371, 116 S. Ct. 1384, 1387, 134 L. Ed. 2d 577 (1996). Second, it must be determined whether the claims, as construed, cover the accused device or process. See Serrano v. Telular Corp., 111 F.3d 1578, 1582 (Fed. Cir. 1997). Here, a Markman decision was filed, defining the claims in question. Memorandum and order, February 11, 1998. The accused products must now be compared to the claims of the patent. See Zenith Lab., Inc. v. Bristol-Myers Squibb Co., 19 F.3d 1418, 1423 (Fed. Cir. 1994) (“[I]t is error for a court to compare in its infringement analysis the accused product or process with the patentee’s commercial embodiment or other version of the product or process; the only proper comparison is with the claims of the patent.”). The patent owner’s burden is to prove infringement by a preponderance of the evidence. See Enercon GmbH v. ITC, 151 F.3d 1376, 1384 (Fed. Cir. 1998).

In response to plaintiff’s motion and in support of their own motion for partial summary judgment, defendants’ sole argument is that “analysis of the accused products [] shows that their contents indicate the presence of a complex of 5-CMI in solution [E]ach and every SK product contains magnesium chloride in an amount sufficient to form a complex of 5-CMI.” Defs. resp., at 10.³

³Defendants’ earlier position was that the accused product did not contain a “ring-stabilizing” amount of a nitrate. They

However, as a matter of both patent law and the science of chemistry, the presence of magnesium chloride in the accused product is immaterial to the issue of literal infringement.

Plaintiff's patent covers:

A stabilized 3-isothiazolone composition substantially free of nitrosamine impurities or precursors therefor which comprises:

- (a) a biologically effective amount of [5-CMI]
- (b) a ring-stabilizing amount of a soluble metal nitrate salt; and
- (c) sufficient water to dissolve (a) and (b).

In the lore of patents, the word "comprises" is a term of art. "The transitional term 'comprising,' . . . is inclusive or open-ended and does not exclude additional, unrecited elements or method steps."⁴ Patent and Trademark Office, U.S. Department of Commerce, Manual of Patent Examining Procedure § 211.03 (1997). Consequently, the scope of the '827 patent is not limited to 5-CMI, nitrate salt, and water, but may also encompass magnesium chloride.

The accused product contains the 5-CMI compound – and not a solution of a complex. A complex is "a compound formed by the combination of two or more compounds usually involving coordinate covalent bonds and often recoverable to the original simpler compound." Condensed Chemical Dictionary (8th ed. 1971). A

abandoned this position at oral argument. Tr. at 20, Sept. 17, 1998.

⁴"Comprises" may be contrasted with "the transitional phrase 'consisting of' [which] excludes any element, step, or ingredient not specified in the claim." Patent and Trademark Office, U.S. Department of Commerce, Manual of Patent Examining Procedure § 211.03 (1997).

complex in solution will dissociate reversibly into its separate parts. See Grant & Hackh, Chemical Dictionary 147 (5th ed. 1987).

Defendants' rely on the declaration of Dr. Chuen-Ing Tseng, a chemist, that "the accused products are solutions of a metal salt complex of 5-CMI" and that "the claims of the '827 Patent do not literally embrace solutions with complexes of 5-CMI." Tseng declaration, ¶¶ 15, 13. This expert confirmed the presence of 5-CMI and magnesium chloride in the accused products. Tseng dec., ¶ 15.

However, defendants produced no evidence that the accused product exists as a complex in solution.⁵ In chemistry, it is well known that the mere presence of two substances does not establish the weak bonds necessary to form a complex. As Dr. Amos B. Smith, III, chairman of the Department of Chemistry at the University of Pennsylvania, explains:

In the case in question, there is no reason to expect (and certainly no current evidence to suggest) that dissolving 5CMI (a compound) in water in the presence of magnesium chloride (a salt) would form a complex between 5CMI and the ions that comprise magnesium chloride in solution. Again, to establish the formation of a complex, one would have to carry out extensive physiochemical measurements to reveal the weak interactions consistent with

⁵Defendants maintain that the '827 prosecution history includes the prosecution history of two other Rohm and Haas patents in which a distinction was drawn between compounds and complexes of 3-isothiazolone. Whether or not other prosecution history is incorporated by reference in the '827 patent – it refers to the other patents as illustrative of a specific point – has no bearing on the question presented here. It is clear that 3-isothiazolone in solution, which is the '827 patent, is a compound, not a complex.

complex formation. To the best of my knowledge, the latter has not been done. Moreover, there is no reason on a chemical basis to expect or predict complex formation. One simply has a solution of two entities, the 5CMI and the magnesium chloride, the latter produced during the preparation of 5CMI. A similar solution would derive by dissolving 5CMI and magnesium chloride in water.

Letter from Amos B. Smith, III, Ph.D., Sept. 17, 1998, at 2. Dr. Smith was retained as the court's independent expert. Fed. R. Evid. 706(a).

Defendants' chemist does not assert that 5-CMI complex exists in solution. According to her, "a solution of the metal salt complex comprises the 3-isothiazolone compound and sufficient metal salt to form the solid complex upon drying." Tseng Dec., ¶ 10 (emphasis added). This is not to say that the complex exists in solution; to the contrary, "when a solution of the complex is dried, the complex is recovered." Id. ¶ 5. The '827 patent refers to solutions, not components in dried states. See Pl. ex. 1, at 1; Rohm & Haas Co. v. Lonza Inc., No. 96-cv-5732, slip op. at 13 (E.D. Pa. Feb 11, 1998) (Markman order) (defining sufficient water as "enough water to form a solution of the active ingredient and the nitrate salt"). The clear import is that isothiazolones are present in aqueous solution.

Construing the evidence in the light most favorable to defendants, the accused products cannot be said to exist in solution as a complex. Rather, the 5-CMI complex would dissociate into its constituent parts: isothiazolone plus metal salt. In this state – the state specified by the patent – the accused

products literally infringe the patent.

Accordingly, plaintiff's motion for partial summary judgment will be granted, and defendants' motion for partial summary judgment will be denied.

Edmund V. Ludwig, J.

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O R D E R

AND NOW, this 30th day of October, 1998, the following is ordered:

1. The motion of plaintiff Rohm and Haas Company for partial summary judgment on the issue of literal infringement against defendants Lonza, Inc. and Sunkyong Industries Limited is granted.

2. The motion of defendants Lonza, Inc. and Sunkyong Industries Limited for partial summary judgment on the issue of literal infringement against plaintiff Rohm and Haas Company is denied.

3. The motion of defendants Lonza, Inc. and Sunkyong Industries Limited for a continuance is denied. Fed. R. Civ. P. 56(f). Defendants shall respond to plaintiff's motion for partial summary judgment for inequitable conduct by November 13, 1998.

A memorandum accompanies this order.

Edmund V. Ludwig, J.