Environmental Manufacturing Solutions, LLC v. Peach State Labs, Inc. Doc. 169

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

ENVIRONMENTAL MANUFACTURING SOLUTIONS, LLC,

Plaintiff,

-vs- **Case No. 6:09-cv-395-Orl-28DAB**

PEACH STATE LABS, INC.,

Defendant.

ORDER

The instant patent infringement controversy involves the removal of unwanted calcium carbonate. Calcium carbonate is often produced and used in industrial processes, but is only slightly soluble in water, causing it to deposit on surfaces and build up in industrial liquids. The disputed patent relates to a method of using urea hydrochloride to remove unwanted calcium carbonate by converting it to a water soluble salt. Plaintiff Environmental Manufacturing Solutions, LLC ("EMS") and Defendant Peach State Labs, Inc. ("PSL") have both moved for summary judgment on the issues of validity and infringement of the asserted patent claims.

After reviewing the submitted documents, the Court concludes that EMS failed to create a genuine issue of material fact as to the invalidity of the patent at issue under 35 U.S.C. §§ 102(a), 102(b), 103, and 112, as well as to the affirmative defense of patent misuse. On the other hand, there remain genuine issues of material fact relating to inventorship and infringement of the relevant patent by the EMS's accused products precluding a grant of summary judgment on these issues in their entirety.

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Background

I. Procedural History

EMS filed the present action against PSL seeking a declaratory judgment that United States Patent No. 5,672,279 ("the '279 patent") is invalid and not infringed by EMS. (Doc. 1 at 9). Along with its Answer, PSL filed a Counterclaim alleging that the use of EMS Ready Mix, Blow Out, Barracuda, Basic CR, SynTech I, SynTech pH, and Eximo products in accordance with the instructions and applications identified in EMS's product literature infringe the '279 patent. (Doc. 29 at 11-12). PSL additionally alleged that EMS contributed to and/or induced infringement of the '279 patent by others, and that EMS's infringement is and has been willful. (*Id*. at 12-13).

The parties disputed the proper construction of several terms of the '279 patent and a pretrial claim construction hearing was conducted in accordance with *Markman v. Westview Instruments*, 517 U.S. 370 (1996). (Docs. 41-42). Following the hearing, a Markman Order was entered construing the contested claims. (Doc. 96).

The parties now move for summary judgment on the issues of validity and infringement. PSL contends that EMS failed to demonstrate by clear and convincing evidence that any claim of the '279 patent is invalid under 35 U.S.C. §§ 102, 103, or 112, or that PSL engaged in patent misuse. (Doc. 125 at 6). EMS argues that the evidence of record establishes that the '279 patent is invalid under 35 U.S.C. §§ 102, 103 and 112, and that PSL failed to set forth any evidence of direct or indirect infringement of the '279 patent. (Doc. 126 at 5, 17).

II. Patent at Issue

The '279 patent, titled "Method for Using Urea Hydrochloride," issued on September 30, 1997 and is assigned to PSL. (Doc. 42-3 at 1). The invention claimed in the '279 patent relates to a method of solubilizing calcium carbonate, which is often produced and used in industrial processes, but is only slightly soluble in water. Due to its limited solubility, calcium carbonate tends to deposit on surfaces and build up in industrial liquids, and its accumulation adversely affects industrial processes and equipment. For instance, calcium carbonate is a major cause of boiler scale in heating systems and raises the pH and solids content of industrial liquids, preventing their disposal in publicly owned treatment facilities. The '279 patent involves the use of urea hydrochloride to remove unwanted calcium carbonate from aqueous suspensions or dispersion of calcium carbonate by converting the calcium carbonate to a water soluble salt. Claim 1 of the '279 patent, the only independent claim, recites:

> 1. A method to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate that includes adding to the suspension or dispersion a sufficient amount of urea hydrochloride to convert the calcium carbonate to a water soluble salt, wherein a molar ratio of urea to hydrochloric acid approximately between 1:4 and 4:1 is used to form said urea hydrochloride.

'279 patent col.8 l.2-8. The claim term "calcium carbonate in aqueous suspensions or dispersions of calcium carbonate" was construed as "insoluble particles of calcium carbonate distributed in water or calcium carbonate in a system with two or more distinct phases consisting of finely divided particles dispersed throughout a bulk substance." (Doc. 96). The claim term "molar ratio" was construed as "a ratio comparing a number of urea molecules to a number of hydrochloric acid molecules."[1] (*Id.*).

[1] While the Court is mindful that claim terms as construed are the relevant terms for purposes of invalidity and infringement, the Order will refer to the original claim language for the sake of

III. The Accused Products

PSL alleges that the use of certain EMS products in accordance with the instructions and applications identified in EMS's product literature infringe the '279 patent. (Doc. 29 at 11). The EMS products presently accused of infringing the '279 patent include: (1) EMS Ready-Mix; (2) Barracuda; (3) EMS Basic CR; (4) EMS BlowOut; (5) EMS SynTech pH; (6) EMS SynTech I; and (7) Eximo (collectively, the "Accused Products"). EMS Ready-Mix, Barracuda, and EMS Basic CR are generally used to remove concrete. EMS Blowout is a line surface cleaner and descaler used to dissolve calcium, lime, scale, milk stone, beer stone, and other deposits. EMS SynTech pH is used to lower the pH of reclaimed water, and EMS SynTech I is used in formulations employed in the herbicide and pesticide industry. Eximo is a soil conditioner designed to be sprayed directly onto turf to solubilize calcium and other salts. EMS has stipulated that the Accused Products contain urea hydrochloride in the molar ratio of urea to hydrochloric acid set forth in claim 1 of the '279 patent. (Doc. 87 at 12).

Standard of Review

A party is entitled to summary judgment "if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled judgment as a matter of law." Fed. R. Civ. P. 56(c); *accord Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). An issue is genuine "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson*, 477 U.S. at 248. An issue of fact is "material" if, under the applicable substantive law, it might affect the outcome of the case. *Id.* A

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brevity.

court must decide "whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law." *Id.*

The party moving for summary judgment has the burden of proving that: (1) there is no genuine issue as to any material fact, and (2) it is entitled to judgment as a matter of law. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). In determining whether the moving party has satisfied its burden, the court considers all inferences drawn from the underlying facts in the light most favorable to the party opposing the motion and resolves all reasonable doubts against the moving party. *Anderson*, 477 U.S. at 255. The court may not weigh conflicting evidence or weigh the credibility of the parties. *Hairston v. Gainesville Sun Pub. Co.*, 9 F.3d 913, 919 (11th Cir. 1993). If a reasonable fact finder could draw more than one inference from the facts and that inference creates an issue of material fact, a court must not grant summary judgment. *Id.* On the other hand, summary judgment must be granted "against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which the party will bear the burden of proof at trial." *Celotex Corp.*, 477 U.S. at 322. In addition, when a claimant fails to produce "anything more than a repetition of his conclusory allegations," summary judgment for the movant is "not only proper but required." *Morris v. Ross*, 663 F.2d 1032, 1034 (11th Cir. 1981).

Analysis

I. Invalidity

A. Anticipation - 35 U.S.C. § 102

PSL contends that EMS failed to create a genuine issue of material fact as to whether any claim of the '279 patent is invalid as anticipated under 35 U.S.C. § 102. Specifically, PSL argues that the cited prior art fails to disclose the use of urea hydrochloride to solubilize aqueous suspensions or

dispersions of calcium carbonate and therefore does not anticipate claim 1 of the '279 patent. EMS moves for summary judgment on the same issue, arguing that the disclosures in the prior art of various uses of urea hydrochloride are sufficient to demonstrate anticipation of the claims of the '279 patent by clear and convincing evidence.

Section 102(a) provides that an issued patent is invalid if "the invention [therein] . . . was described in a printed publication . . . before the invention thereof by the applicant." 35 U.S.C. § 102(a). Section 102(a) therefore embodies the concept of novelty—if a "device or process has been previously invented (and disclosed to the public), then it is not new, and therefore the claimed invention is 'anticipated' by the prior invention." *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). "An 'anticipating' reference must describe all of the elements and limitations of the claim in a single reference, and enable one of skill in the field of the invention to make and use the claimed invention." *Merck & Co. v. Teva Pharm. USA, Inc.*, 347 F.3d 1367, 1372 (Fed. Cir. 2003) (internal citations omitted). Thus, in order to demonstrate anticipation, the proponent must show "that the four corners of a single, prior art document describe every element of the claimed invention," as arranged in the claim. *Xerox Corp. v. 3Com Corp.*, 458 F.3d 1310, 1322 (Fed. Cir. 2006) (quoting *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000)); *Connell v. Sears Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983).

Despite the requirement that each claim element must be described within the four corners of a single anticipating reference, a prior art reference that does not explicitly disclose each element of a claimed invention may still anticipate the claimed invention "if [the] missing characteristic is necessarily present, or inherent, in the single anticipating reference." *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003).

> Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. If, however, the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function, it seems to be well settled that the disclosure should be regarded as sufficient.

Cont'l Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1268 (Fed. Cir. 1991) (internal quotation omitted) (emphasis in original). When a prior art reference is silent about the asserted inherent characteristics, extrinsic evidence may be used to fill the gaps by demonstrating that the "missing descriptive matter is necessarily present in the thing described in the reference . . . ." *Id*. However, extrinsic evidence may only serve this limited role in an anticipation analysis. It may not be used to expand the meaning of a reference. *Id*. What a prior art reference discloses in an anticipation analysis is a factual determination that may be decided on a motion for summary judgment only if no material facts are disputed. *Novo Nordisk Pharm. v. Bio-Tech. Gen. Corp.*, 424 F.3d 1347, 1355 (Fed. Cir. 2005).

A patent is presumed valid under 35 U.S.C. § 282, and EMS bears the burden to prove the factual elements of invalidity by clear and convincing evidence.[2] *Yoon Ja Kim v. ConAgra Foods, Inc.*, 465 F.3d 1312, 1324 (Fed. Cir. 2006). While a court must consider an examiner's decision on an original or reissue application when determining if the party asserting invalidity has met its statutory burden, a court may nonetheless find a patent anticipated based on a reference that was properly before the PTO at the time of issuance. *Custom Accessories, Inc. v. Jeffery-Allan Indus.*,

[2] The "clear and convincing" standard is an intermediate standard lying somewhere between the "beyond a reasonable doubt" and the "preponderance of the evidence" standard of proof. *Addington v. Texas*, 441 U.S. 418, 425 (1979). Although the exact definition is elusive, "clear and convincing evidence" has been described as evidence that "place[s] in the ultimate factfinder an abiding conviction that the truth of its factual contentions are highly probable." *Colorado v. New Mexico*, 467 U.S. 310, 316 (1984) (internal quotations omitted).

Inc., 807 F.2d 955, 961 (Fed. Cir. 1986); *IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377, 1381 (Fed. Cir. 2005).

1. The Johnson Patent

In the present case, EMS contends that the '279 patent is anticipated by United States Patent No. 2,250,379 (the "Johnson Patent"), which discloses the use of urea hydrochloride to clean "surfaces of almost any type." (Doc. 42-7 at 2). In response, PSL argues that while the Johnson Patent discloses the use of urea hydrochloride to clean surfaces, it fails to disclose the use of urea hydrochloride to solubilize aqueous suspensions or dispersions of calcium carbonate and therefore does not anticipate claim 1 of the '279 patent. The Court agrees.

The Johnson patent, titled "Cleaning Composition and Process for the Preparation Thereof," discloses the use of urea hydrochloride to clean "surfaces of almost any type, such as painted, varnished and lacquered surfaces, tile, porcelain, glass, metal surfaces, or almost any type of surface which is covered with a film of the type for the removal of which acid cleaning agents are desirable." (Doc. 42-7 at 2). The Johnson Patent does not, however, expressly disclose the use of urea hydrochloride to solubilize aqueous suspensions or dispersions of calcium carbonate, nor does the Johnson Patent expressly refer to the use of urea hydrochloride or any other cleaning agent to remove, solubilize, or otherwise interact with calcium carbonate. Thus, any theory of anticipation by the Johnson Patent must rely on an inherent disclosure of the use of calcium carbonate to solubilize aqueous suspensions or dispersions of calcium carbonate element.[3]

[3] While EMS argues that the property of urea hydrochloride converting calcium carbonate to a water soluble salt is inseparable from urea hydrochloride itself and thus unpatentable, (Doc. 130 at 12), such an argument is not supported by statute or Federal Circuit precedent. Section 101 identifies as patentable "any new and useful improvements" of a process, machine, manufacture or composition

EMS repeatedly argues that the Johnson Patent's disclosure of using urea hydrochloride to clean surfaces "clearly" anticipates the '279 patent because the disclosure of cleaning surfaces "effectively discloses the use of urea HCL to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate." (Doc. 126 at 16; Doc. 130 at 9). However, such an "effective disclosure" is not apparent on the face of the Johnson Patent, and EMS fails to present any argument or evidence to support a finding that the missing element is necessarily present in the Johnson Patent or that the natural result flowing from the operation as taught by the Johnson Patent would result in urea hydrochloride solubilizing calcium carbonate in aqueous suspensions or dispersions of calcium carbonate.[4] *See Cont'l Can*, 948 F.2d at 1268 ("Inherency [] may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient."); *Koito Mfg. Co., v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1152 (Fed. Cir. 2005) (holding that because "[g]eneral and conclusory testimony . . . does not suffice as substantial evidence of invalidity," the defendant "needed some explanatory testimony or other evidence to compare [the

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of matter. 35 U.S.C. § 101. In light of Section 101, the Federal Circuit has explained that a patent to an apparatus does not necessarily prevent a subsequent inventor from obtaining a patent on a new method of using that apparatus, "where that new method is useful and nonobvious." *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc* 289 F.3d 801, 809 (Fed. Cir. 2002). In fact, it is well settled that "[n]ew uses of old products or processes are indeed patentable subject matter." *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1378 (Fed. Cir. 2005) (finding a patent claiming a new use of a composition for the treatment of sunburn patentable over prior art disclosing the composition without suggesting the application of the compound to the skin); *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) (finding that principles of inherency do not prohibit a process patent for a new use of an old structure).

[4] In fact, Dr. Lauren Tolbert, PSL's expert witness, testified that "[c]leaning, as you know, is a multi billion dollar industry. There are thousands of different cleaning products available. There is nothing in the [Johnson Patent] about what surfaces to clean it with and what to remove using that material. And so it doesn't really tell me anything about cleaning. It says it can be used to clean, but it doesn't teach me how to clean, what to clean." (Doc. 126-3 at 192:7-14).

prior art reference] with the patent at issue given that the [prior art] is a technical patent document"); *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1315-16 (Fed. Cir. 2002) ("Typically, testimony concerning anticipation must be testimony from one skilled in the art and must identify each claim element, state the witnesses' interpretation of the claim element, and explain in detail how each claim element is disclosed in the prior art reference.").

Even construed in the light most favorable to EMS, the Johnson Patent discloses no more than a broad genus of potential applications for its discoveries—it does not inherently disclose the missing solubilizing calcium carbonate element.[5] *See Metabolite Labs., Inc. v. Lab. Corp. of Am.*, 370 F.3d 1354, 1368 (Fed. Cir. 2004) ("A prior art reference that discloses a genus still does not inherently disclose all species within that broad category."); *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1262 (Fed. Cir. 1989) ("Under [defendant's] theory, a claim to a genus would inherently disclose all species. We find [this] argument wholly meritless . . . ."); *see also Merck & Co.*, 347 F.3d at 1372 (finding a prior art reference disclosing that a compound would be "suitable for . . . pharmaceutical preparations" insufficient to anticipate the particular claimed therapeutic use of the compound in the patent at issue). Because EMS fails to raise a genuine issue of material fact as to whether the Johnson Patent discloses each and every element of the claimed invention, summary judgment will be granted in favor of PSL to the extent PSL seeks a finding that the '279 patent is not

[5] EMS contends that the present case is similar to *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368 (Fed. Cir. 2005). (Doc. 130 at 10-11). In *Perricone*, the Federal Circuit rejected the application of the "axiomatic proposition" that "disclosure of a broad genus does not necessarily specifically disclose a species within that genus" where the prior art did not simply disclose a broad genus of ingredients, but rather disclosed the particular patented ingredient at issue. 432 F.3d at 1377. Here, the Johnson Patent does not specifically disclose the use of urea hydrochloride to "clean" or otherwise solubilize calcium carbonate in any form. In fact, the Johnson Patent does not even mention the term calcium carbonate.

anticipated by the Johnson Patent. *See Xerox Corp.*, 458 F.3d at 1322 (finding that in order to establish anticipation under § 102, a party must show "that the four corners of a single, prior art document describe every element of the claimed invention").

2. The Cardwell Patent

EMS next contends that the '279 patent is anticipated by United States Patent No. 2,485,529 (the "Cardwell Patent"), which discloses the use of urea hydrochloride to remove scale deposits from iron or steel surfaces. (Doc. 126 at 17; Doc. 126-11). In response, PSL contends that the Cardwell Patent fails to disclose the use of urea hydrochloride to solubilize calcium carbonate or that the urea hydrochloride disclosed is formed from a molar ratio of urea to hydrochloric acid between 1:4 to 4:1.

The Cardwell Patent, titled "Composition for Removing Scale from Ferrous Metal Surfaces" discloses the use of urea hydrochloride to dissolve scale containing a ferric iron constituent from ferrous metal surfaces, with reduced attack upon the underlying metal. (Doc. 126-11 at 1). However, like the Johnson Patent, the Cardwell Patent does not explicitly disclose the use of urea hydrochloride to solubilize aqueous suspensions or dispersions of calcium carbonate, nor does the Cardwell Patent refer to the use of urea hydrochloride or any other cleaning agent to remove, solubilize, or otherwise interact with calcium carbonate. Thus, any theory of anticipation would have to rely on an inherent disclosure of this missing element. Nevertheless, such an inherent disclosure is not apparent on the face of the Cardwell Patent, and EMS fails to present any evidence or argument to support a finding that this missing element is "necessarily present" in the Cardwell Patent. *See Cont'l Can*, 948 F.2d at 1268 ("Inherency [] may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient."). To the contrary, EMS's own expert, Dr. William Grubbs, provides his opinion that boiler scale "can consist of a large number

of components other than calcium carbonate." (Doc. 126-17 ¶ 30). Thus, the Cardwell patent fails to anticipate the '279 patent.[6]

3. The Ludwig Patent

EMS additionally contends that the '279 patent is invalid as anticipated by United States Patent No. 5,492,629 (the "Ludwig Patent"). (Doc. 126 at 19). The Ludwig Patent, titled "Method of Cleaning Scale and Stains in Water Systems and Related Equipment" discloses a method for removing scale and stains from the interior surfaces of water-containing systems without having to drain the system by acidifying the water and later neutralizing it with a basic compound. (Doc. 124-14). However, like the Johnson and Cardwell Patents, the Ludwig Patent fails to expressly disclose the use of urea hydrochloride to solubilize calcium carbonate, and there is no argument or evidence of record creating a genuine issue of material fact as to whether the use of urea hydrochloride to solubilize calcium carbonate is necessarily present in the Ludwig Patent's disclosure of cleaning scale

[6] In addition, there is no evidence to support a finding that the Cardwell Patent discloses the use of urea hydrochloride wherein "a molar ratio of urea to hydrochloric acid approximately between 1:4 and 4:1 is used to form said urea hydrochloride." '279 Patent col.8 l.7-9. In fact, EMS's own expert, Philip Summa, testified that the ratio of urea to hydrochloric acid disclosed in the Cardwell Patent is approximately 8:1. (Doc. 126-12 at 11).

and stains in water systems.[7] Accordingly, the '279 patent is not invalid as anticipated by the Ludwig

[7] EMS lists a number of other patents as anticipating the '279 patent, citing the claim chart provided as Exhibit 9 to Doc. 126, but providing no further citation to evidence or argument with respect to these references. (Doc. 126 at 13; Doc. 126-9). Considering the limited evidence provided in the claim chart in the light most favorable to EMS, these cited patents do not create a genuine issue of material fact as to whether the prior art anticipates the '279 patent because there is no evidence in the record to support a finding that the prior art references disclose the use of urea hydrochloride to solubilize aqueous suspensions or dispersions of calcium carbonate and because such a disclosure is not apparent to a lay person from the face of the prior art references themselves. First, United States Patent No. 3,920,566 (the "Richardson Patent"), which discloses a self-neutralizing well acid, fails to disclose the use of urea hydrochloride to solubilize calcium carbonate. While the claim chart states that because "rock is known to contain calcium carbonate," the use of urea hydrochloride to remove calcium deposits is disclosed, EMS provides no support for this assertion and the Court is unable to find such support in the Richardson Patent itself, which does not mention calcium or calcium carbonate, nor would such a disclosure be apparent to a lay person. United States Patent No. 4,537,684 (the "Gallup Patent"), which discloses the use of urea hydrochloride to minimize corrosion and formation of scale in a vessel when brine is produced, similarly fails to disclose the use of urea hydrochloride to solubilize calcium carbonate. While the claim chart states that "scale comprises, among other things, calcium," EMS fails to provide a citation to support a finding that the Gallup Patent's reference to scale necessarily includes solubilizing calcium carbonate, the Court is unable to find such support in the Gallup Patent itself, and such a disclosure would not be apparent to a lay person. United States Patent No. 3,936,316 (the "Gulla Patent"), which discloses a process and composition for pickling metals, fails to anticipate the '279 patent for the same reasons—it does not disclose the use of urea hydrochloride to solubilize calcium carbonate, either expressly or inherently. United States Patent No. 4,699,663 (the "Feeney Patent"), which discloses the use of aminopolycarboxylic acids that function as chelating agents for calcium and magnesium ions present in hard water, does not explicitly disclose using urea hydrochloride to solubilize calcium carbonate, and EMS offers no evidence or argument to demonstrate how the chelation of calcium ions in hard water necessarily involves using urea hydrochloride to solubilize calcium carbonate. In fact, EMS fails to provide any definition or other information relating to the concept of chelation. (Doc. 126-30). Finally, United States Patent No. 4,466,893 (the "Dill Patent") discloses the use of urea hydrochloride to dissolve limestone. EMS claims that because limestone contains calcium carbonate, it is "unequivocally disclosed in the Dill Patent . . . that urea hydrochloride is used to solubilize calcium carbonate by adding to the suspensions or dispersions or sufficient amount of urea hydrochloride." (Doc. 130 at 11). However, EMS provides no support for the proposition that dissolving limestone necessarily involves solubilizing aqueous suspensions or dispersions of calcium carbonate. In other words, there is no evidence or argument in the record to establish that the limestone disclosed in the Dill Patent necessarily includes an aqueous suspension or dispersion of calcium carbonate and that adding urea hydrochloride to the limestone necessarily solubilizes said calcium carbonate, nor is such a disclosure apparent to a lay person. Thus, there is no genuine issue of material fact as to whether the Dill Patent anticipates the '279 patent.

Patent.

4. Conclusion

Having considered all of the prior art references of record, the Court finds that the '279 patent is not invalid as anticipated under 35 U.S.C. § 102. While the question of what a prior art reference discloses in an anticipation analysis is a factual determination, the evidence in the record fails to create a genuine issue of material fact regarding whether any of the prior art references cited by EMS disclose each and every limitation of any claim of the '279 patent. *See Novo Nordisk Pharm.*, 424 F.3d at 1355. Because EMS bears the burden to establish anticipation by clear and convincing evidence, summary judgment will be granted in favor of PSL to the extent PSL seeks a finding that the claims of the '279 patent are not invalid as anticipated under 35 U.S.C. §§ 102(a) or (b).

B. Obviousness - 35 U.S.C. § 103

EMS next argues that summary judgment as to the obviousness of the claims of the '279 patent is appropriate in light of the Johnson, Cardwell, Ludwig, and Richardson Patents. (Doc. 126 at 20). EMS maintains that because the '279 patent states that urea hydrochloride "can be used as an acid replacement in *any process* that hydrochloric acid . . . has traditionally been used," the patent is obvious in light of prior art teaching the use of urea hydrochloride as an acid replacement for a variety of processes. (*Id.*). In response, PSL argues that EMS's unsworn "summary" chart of attorney argument is legally insufficient to create a genuine issue as to any of the underlying factual findings of the obviousness analysis such that summary judgment should be granted in favor of PSL. (Doc. 131 at 17-18).

Pursuant to 35 U.S.C. § 103, an invention cannot be patented if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would

have been obvious at the time the invention was made to a person having ordinary skill in the art . . . ." 35 U.S.C. § 103(a). Patents are presumed to be valid upon issuance, 35 U.S.C. § 282, and included within that presumption of validity is a presumption of non-obviousness, *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 714 (Fed. Cir. 1984). Thus, a party seeking to invalidate a patent based on obviousness bears the burden of proving "by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so."[8] *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007).

The ultimate conclusion of whether a claimed invention would have been obvious is a question of law based on underlying findings of fact, and the patent challenger bears the burden of proving these factual inquiries by clear and convincing evidence. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1375 (Fed. Cir. 1986). The underlying factual inquiries include: (1) the scope and content of the prior art; (2) differences between claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations such as commercial success and satisfaction of a long felt need. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Summary judgment as to obviousness is appropriate if "the content of the prior art, the scope of the patent claim, and the level

[8] What a particular reference discloses is a question of fact, *Para-Ordnance Mfg. Inc. v. SGS Importers Int'l, Inc.*, 262 F.3d 1339, 1352 (Fed. Cir. 1995), as is the question of whether there was a reason to combine certain references, *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1352 (Fed. Cir. 2001).

of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors."[9] *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007).

In the present case, none of the relevant factual questions outlined by the Supreme Court in *Graham* are in material dispute. First, with respect to the scope and content of the prior art, it is undisputed that the prior art discloses various uses of urea hydrochloride in the molar ratio claimed in the '279 patent. However, there is *no evidence* in the record creating a genuine issue of material fact as to whether the prior art discloses the use of urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate.

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[9] To the extent PSL contends that each element of the claims at issue must be disclosed in the prior art of record before a court may engage in an obviousness inquiry, PSL mischaracterizes the obviousness analysis under 35 U.S.C. § 103. Nowhere in the statutory language or the relevant case law is there a requirement that the prior art contain each and every element of the claimed invention. Section 103 states that an invention cannot be patented if "the *differences* between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art . . . ." 35 U.S.C. §103 (emphasis added). Thus, Section 103 itself contemplates differences between the claimed invention and the prior art. Moreover, the second *Graham* factor requires courts to analyze the differences between the claims and the prior art. 383 U.S. at 17. Although in *KSR*, the Supreme Court recently addressed the obviousness analysis in situations where the patent at issue claims a combination of known prior art elements, it did not create a requirement that each element of the claim must be previously disclosed in the prior art of record in order for a claim to be found obvious, as suggested by PSL. 550 U.S. at 423. Rather, the *KSR* Court discussed the proper obviousness analysis for situations where the patent at issue claims a combination of known prior art elements. *Id*. Specifically, the *KSR* Court discussed the continuing validity of the Federal Circuit's rigid teaching-suggestion-motivation test in such instances. *Id*. To the extent the Northern District of Illinois suggested such a requirement exists in *Abbott Labs. v. Sandoz, Inc.*, 550 F. Supp. 2d 846 (N.D. Ill. 2007), this Court disagrees. The case cited by the *Abbott* court to support its statement that each element must be disclosed in the prior art, *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356 (Fed. Cir. 2006), states that "[w]here, *as here*, all claim limitations are found in a number of prior art references, the factfinder must determine . . . ." 464 F.3d at 1360 (emphasis added). Thus, both the *Dystar* and *KSR* decisions discussed a particular type of obviousness analysis wherein each element of the claim at issue was known in the prior art, and neither decision limited the obviousness analysis to such cases. To find otherwise would render nearly any new improvement on a known invention nonobvious.

It is well established that conclusory statements of counsel or witnesses on the ultimate issue of obviousness, like those provided by EMS, are insufficient to create such a genuine issue. *See, e.g.*, *Applied Companies v. United States*, 144 F.3d 1470, 1475 (Fed. Cir. 1998) ("It is well settled that a conclusory statement on the ultimate issue does not create a *genuine* issue of fact." (internal quotations and citations omitted)). Furthermore, in light of the parties' agreement that the chemistry involved in the '279 patent is complicated, the Court finds that the subject matter of the '279 patent is "sufficiently complex to fall beyond the grasp of an ordinary layperson," such that conclusory opinions and attorney argument are insufficient to create a genuine issue of material fact relating to chemical reactions that would not be apparent to a lay person from the face of the prior art references. *See Proveris Scientific Corp. v. Innovasystems, Inc.*, 536 F.3d 1256, 1287 (Fed. Cir. 2008) (affirming a district court's decision that the defendant was required to present expert testimony in order to establish obviousness because the subject matter of the patent at issue, involving a device used for calibrating drug delivery systems, was sufficiently complex to fall beyond the grasp of an ordinary lay person); *CIF Licensing, LLC v. Agere Sys. Inc.*, 727 F. Supp. 2d 336, 360 (D. Del. 2010) (finding the expert's testimony too conclusory to support the jury's verdict of anticipation and obviousness with regards to one of the patents at issue).

Accordingly, EMS's unsupported attorney argument that the disclosure of "subterranean regions" in the Richard Patent discloses the solubilizing calcium carbonate element of the '279 patent because "subterranean regions" are known to include rock, which in turn are known to include calcium, is insufficient to create a genuine issue of material fact as to whether the Richardson Patent discloses the solubilizing calcium carbonate element of the '279 patent claims, particularly in light of the fact that the Richardson Patent itself does not expressly disclose any a connection between

subterranean regions and solubilizing calcium carbonate. In fact, calcium is not even mentioned in the Richardson Patent.[10] *See Glaverbel Societe Anonyme v. Northlake Marketing & Supply, Inc.*, 45 F.3d 1550, 1562 (Fed. Cir. 1995) ("There must be sufficient substance, other than attorney argument, to show that the issue requires trial."). Likewise, EMS fails to provide any testimony or other evidence to support its assertion that the remaining prior art references disclose the use of urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate. For instance, there is no evidence to demonstrate that the cited disclosures of using urea hydrochloride to clean surfaces, limestone, and boiler scale, or chelating calcium ions also disclose using urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate. Nor is there any evidence in the record relating to how a person of ordinary skill

[10] The disclosure of "subterranean regions" in the Richardson Patent refers to the use of the invention to prepare "a dilute acidizing solution for cleaning or preflushing materials within a subterranean region." col.3 l.21-23. The Richardson Patent then states that "such dilute acids are used for example, in cleaning or preflushing sand or gravel packs and/or the adjacent casing perforations and/or the adjacent reservoir rock in order to ensure a uniform penetration of the fluid, such as a sand consolidating solution of their zone plugging solutions or the like." col.3 l.25-30. The Richardson Patent does not specifically suggest the use of such acids for solubilizing calcium carbonate or refer to calcium, and EMS fails to offer any evidence to support a finding that in light of the phrase "subterranean region" or the examples provided of using the acid in subterranean regions, it would have been obvious to one of ordinary skill in the art to use urea hydrochloride to solubilize aqueous suspensions or dispersions of calcium carbonate. Furthermore, even if it was apparent to a lay person that subterranean regions include rock, which in turn include calcium, it is not apparent that the Richardson Patent in turn discloses solubilizing said calcium in the form of aqueous suspensions or dispersions of calcium carbonate. *See, e.g.*, col.1. l.11-15 (the specification states that the invention "relates to an acid that is adapted to be flowed into contact with a *material* in a remote region," but does not state that the invention relates to solubilizing the composition of the remote region itself).

in the art would have viewed this prior art as making such a disclosure, which would not be apparent to a lay person. Thus, there is no genuine issue regarding the scope and content of the prior art.[11]

With respect to the second *Graham* factor, there is no genuine dispute relating to the differences between the prior art and the claimed invention. While EMS repeatedly argues that there is no difference between the prior art and the claimed invention because each element of the claims of the '279 patent is disclosed in the prior art, as previously discussed, EMS fails to create a genuine issue regarding whether the prior art of record discloses using urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate. With respect to the final two *Graham* factors, the parties do not dispute the level of ordinary skill in the art, and PSL has

[11] EMS contends that "the chart set forth in [Doc. 130-1] provides an element by element analysis of the prior art which discloses each element of the claims in which PSL asserts infringement," (Doc. 130 at 15). However, the claim chart provides nothing more than a list of previously cited prior art references. The claim chart provides neither citations indicating where in the prior art references the elements are disclosed, nor citations to expert testimony or argument explaining how the prior art references disclose the claim elements or how a person of ordinary skill in the art would have viewed the prior art references. Thus, the claim chart set forth in Doc. 130-1 is insufficient to create a genuine issue of material fact as to whether the prior art discloses solubilizing calcium carbonate in aqueous suspensions or dispersion of calcium carbonate. The same is true for the claim chart provided at Doc. 126-9. While this chart provides specific citations to the references, none of the citations specifically disclose solubilizing calcium carbonate, and EMS does not provide citation to expert testimony or other evidence to support its assertions that the references do in fact disclose solubilizing calcium carbonate or that the references would be viewed by a person having ordinary skill in the art as making such a disclosure.

presented evidence of secondary considerations, which EMS disputes.[12] (*See* Docs. 126-10-126-12; Doc. 130).

Finally, EMS may not create a genuine issue of material fact with regards to the obviousness of the '279 patent by simply offering evidence that one or more of the uses of urea hydrochloride discussed in the *specification* of the '279 patent, such a cleaning surfaces, are similarly disclosed in the prior art. It is well settled that "'[t]he invention' is defined by the claims." *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1565 (Fed. Cir. 1991). Thus, in order to demonstrate obviousness, EMS must establish that the *claims* of the '279 patent are obvious, not merely one of the uses of urea hydrochloride disclosed in the specification. *See Rockwell Int'l Corp. v. U.S.*, 147 F.3d 1358, 1366 (Fed. Cir. 1998) (finding that the defendants failed to prove "by clear and convincing evidence that the invention *defined in the claims of the [patent at issue]* would have been obvious to one of ordinary skill in the art") (emphasis added).

The ultimate judgment of obviousness is a legal determination, and summary judgment as to obviousness is appropriate where, "the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute and the obviousness of the claim is apparent in light of these factors." *KSR*, 550 U.S. at 427. Here, EMS contends that the '279 patent is obvious because the prior art references of record, alone or in combination, disclose all of the elements of claim 1 of the '279 patent, rendering the patent invalid in its entirety. Yet, as previously discussed,

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[12] "Although secondary considerations must be taken into account, they do not necessarily control the obviousness conclusions." *Pfizer, Inc.*, 480 F.3d at 1372 (citing *Newell Cons., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988)). Here, PSL introduces evidence of secondary considerations of nonobviousness, which EMS disputes. However, a factual finding relating to the disputed secondary considerations on *nonobviousness* is not required to reach a conclusion that EMS failed to create a genuine issue of material fact as to *obviousness*.

the evidence in the record fails to create a genuine issue of material fact regarding whether the cited prior art references disclose the use of urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate, an element of each claim of the '279 patent.[13] More specifically, there is no evidence of record indicating that cleaning surfaces, removing boiler scale, dissolving limestone, chelating calcium, or any of the other uses of urea hydrochloride referenced in the prior art of record disclose the use of urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate and EMS does not argue that the scope of the '279 patent claims is broad enough to include these specifically disclosed uses of urea

[13] EMS further argues that the '279 patent is invalid in light of PSL's infringement allegations, mainly that if EMS infringes the '279 patent, the '279 patent is necessarily invalid because EMS is simply "practicing the prior art." The Court disagrees. "[T]he proper framework for challenging the validity of a patent is not for the accused to show that it is practicing the prior art, but to show that every element of the patent claims reads on a single prior art reference." *Uniloc USA, Inc. v. Microsoft Corp*, Nos. 2010-1035, 2010-1055, 2011 WL 9738, at *27 (Fed. Cir. Jan. 4, 2011) ("'[M]ere proof that the prior art is identical, in all material respects, to an allegedly infringing product cannot constitute clear and convincing evidence of invalidity.'") (quoting *Zenith Electronics Corp. v. PDI Comm'n Sys, Inc.*, 522 F.3d 1348, 1363 (Fed. Cir. 2008)). EMS relies on *Verizon Servs. Corp. v. Cox Fibernet Va., Inc.*, 602 F.3d 1325 (Fed. Cir. 2010), to support its practicing the prior art invalidity position. However, in *Verizon Services*, the Federal Circuit determined that "a reasonable jury could conclude, based on evidence in the record and separate and apart from any alleged 'practicing the prior art' argument, that the [patents-in-suit] were invalid" because the defendant's expert had detailed how the prior art disclosed *each* of the claim elements. 602 F.3d at 1339. Thus, *Verizon Servs.* is easily distinguishable from the present case, where EMS has failed to provide any evidence regarding whether the prior art discloses the use of urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate, an element of each claim of the '279 patent. Similarly, the Court rejects EMS's arguments that PSL's characterization of the '279 patent affects the scope of the claim language for purposes of determining invalidity. "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtrations Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2005)). Thus, "it is the presence of the prior art and its relationship to the claim language that matters for invalidity," not PSL's contentions regarding the scope of the claim terms. *Tate Access Floors, Inc. v. Interface Architectural Res., Inc.*, 279 F.3d 1357, 1367 (Fed. Cir. 2002).

hydrochloride. Furthermore, there is no evidence of record to create a genuine issue regarding whether using urea hydrochloride to solubilize calcium carbonate in aqueous suspensions or dispersions of calcium carbonate—if not specifically disclosed in the prior art—would nonetheless have been obvious to one of skill in the art in light of the disclosures in the prior art.

In sum, because EMS failed to create a genuine issue of material fact relating to whether the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art, summary judgment will be granted in favor of PSL to the extent PSL seeks a finding that the claims of the '279 patent are not invalid as obvious under 35 U.S.C. § 103. *See Celotex Corp v. Catrett*, 477 U.S. 317, 332 (1986) ("[A] party seeking summary judgment always bears the initial responsibility of informing the district court of the basis for its motion, and identifying those portions of 'the pleadings, depositions, answers to interrogatories, and admissions on file, together with affidavits, if any,' which it believes demonstrate the absence of a genuine issue of material fact.").

II. 35 U.S.C. § 112

In its Motion for Partial Summary Judgment, PSL contends that summary judgment is appropriate with respect to EMS's defense of invalidity under 35 U.S.C. § 112 because EMS never developed this defense in discovery. (Doc. 125 at 24). In response, EMS contends that it addressed the § 112 validity defense it its response to PSL's interrogatories, (Doc. 130 at 21), and that the '279 patent is invalid under § 112 for both lack of definiteness and lack of enablement, (Doc. 126 at 23).

The definiteness requirement is set forth in 35 U.S.C. § 112 ¶ 2, which provides that the specification of a patent must "conclude with one or more claims particularly pointing out and

distinctly claiming the subject matter which the applicant regards as his invention." The primary purpose of this requirement is to ensure public notice of the scope of the patentee's legal protection, such that interested members of the public can determine whether or not they infringe. *Halliburton Energy Servs., Inc. v. M-I, LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008).

In order to invalidate a claim as indefinite under 35 U.S.C. § 112 ¶ 2, a party challenging a patent must establish by clear and convincing evidence that "a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area." *Halliburton*, 514 F.3d at 1249-50. "If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, . . . the claim [is] sufficiently clear to avoid invalidity on indefiniteness grounds." *Exonn Res. & Eng'g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Thus, a claim is only invalid as indefinite under § 112 if its meaning and scope are "insolubly ambiguous." *Halliburton*, 514 F.3d at 1249. "Proof of indefiniteness requires such an exacting standard because claim construction often poses a difficult task over which 'expert witnesses, trial courts, and even the judges of the court may disagree.'" *Id.* (quoting *Exxon Res. & Eng'g Co.*, 265 F.3d at 1375).

Here, EMS contends that claim 1 of the '279 patent is invalid as indefinite because PSL's own expert "has difficulty determining certain language of the Court's construction of claim 1." (Doc. 126 at 24). In support of this assertion, EMS cites the testimony of Dr. Kurtis, wherein Dr. Kurtis expresses her disagreement with the Court's construction and offers her opinion that the term "finely divided particles" may or may not include calcium carbonate. (*Id.*). EMS also cites the testimony of its own expert witness, Dr. Grubbs, wherein Dr. Grubbs similarly expresses his disagreement with the

Court's claim construction. (*Id.*). However, as discussed previously, a claim is not indefinite simply because reasonable persons like Dr. Kurtis and Dr. Grubbs disagree as to the meaning and scope of the claim as construed. *See Exonn*, 265 F.3d at 1375. If this were the case, Section 112 would render nearly every patent claim invalid. Instead, under well established Federal Circuit precedent, a claim is indefinite only if its meaning and scope are "insolubly ambiguous" to a person having ordinary skill in the art. EMS fails to provide the Court with any evidence regarding whether a person of ordinary skill in the art would be unable to determine what is claimed in the context of the claim language, the specification, the prosecution history, and their knowledge of the relevant area. *Halliburton*, 514 F.3d at 1249; *see also Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1332 (Fed. Cir. 2010) ("Indefiniteness requires a determination whether those skilled in the art would understand what is claimed." (internal quotation omitted)). In fact, EMS fails to provide any evidence regarding what a skilled artisan would or would not understand. Thus, EMS fails to create a genuine issue of material fact as to whether the claims of the '279 patent are invalid as indefinite.[14]

With respect to invalidity for lack of enablement, EMS's Motion for Summary Judgment recites the legal standard for enablement and includes lack of enablement in its invalidity subtitles. However, EMS fails to present any specific argument or evidence to support a finding that the claims of the '279 patent are invalid for lack of enablement and therefore fails to create a genuine issue of material fact as to whether the '279 patent is invalid for lack of enablement.

[14] In the Invalidity Claim Chart provided at Doc. 130-2, EMS contends that the Court's Markman Order is indefinite because "it is not clear whether the distinct phases must be visible to the naked eye." (Doc. 130-2 at 19). However, EMS provides no argument or citation to the record to explain how or why the claim construction is insolubly ambiguous to a person of ordinary skill in the art unless it details whether the distinct phases are visible to the naked eye.

Considering the evidence in the record in the light most favorable to EMS, the Court finds that EMS failed to create a genuine issue of material fact as to whether the '279 patent is invalid pursuant to 35 U.S.C. § 112, and summary judgment will be granted in favor of PSL as to invalidity under 35 U.S.C. § 112. *See Young v. Lumenis, Inc.*, 492 F.3d 1336, 1345 (Fed. Cir. 2007) ("Because a patent is presumed to be valid, the evidentiary burden to show facts supporting a conclusion of invalidity is one of clear and convincing evidence.").

III. Patent Misuse.

Patent misuse is an affirmative defense to an accusation of patent infringement, the successful assertion of which "requires that the alleged infringer show that the patentee has impermissibly broadened the 'physical or temporal scope' of the patent grant with anticompetitive effect." *Windsurfing Int'l, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir.1986) (quoting *Blonder-Tongue Lab., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 343 (1971)). Here, EMS asserted an affirmative defense of patent misuse and argued on summary judgment that PSL engaged in patent misuse by entering into impermissible tying agreements requiring licensees to purchase *all* urea hydrochloride exclusively from PSL despite the fact that the '279 patent covers only particular uses of urea hydrochloride. (Doc. 130 at 23-24). However, EMS subsequently filed a Notice of Mootness and Withdrawal of Patent Misuse Defense, stating that "EMS no longer opposes the entry of summary judgment against EMS solely on the patent misuse defense." (Doc. 142 at 1). Accordingly, summary judgment will be granted in favor of PSL as to the affirmative defense of patent misuse.

IV. Inventorship

EMS contends that the '279 patent is invalid for failure to comply with 35 U.S.C. § 102(f) because PSL incorrectly lists Richard Sargent as an inventor. (Doc. 126 at 24). EMS further argues that summary judgment as to invalidity under § 102(f) is appropriate because PSL failed to provide contemporaneous and corroborative evidence indicating that Sargent was properly listed as an inventor. (*Id*. at 26-27). In response, PSL contends that there is sufficient evidence of record to create a genuine issue of material fact as to whether Sargent was properly listed as a co-inventor. (Doc. 131 at 25).

The patent laws provide that whoever "invents or discovers" patentable subject matter is entitled to a patent thereon, 35 U.S.C. § 101, and that "[w]hen an invention is made by two or more persons jointly, they shall apply for [a] patent jointly." 35 U.S.C. § 116. Section 102(f) further provides that "[a] person shall be entitled to a patent unless he did not himself invent the subject matter sought to be patented," thereby mandating that a patent accurately lists the inventors of a claimed invention. *See Schulze v. Green*, 136 F.3d 786, 792 (Fed. Cir. 1998) (permitting a third-party to challenge patentability under § 102(f) based on an assertion of misjoinder). However, "[t]he inventors as named in an issued patent are presumed to be correct," and the "burden of showing misjoinder or nonjoinder of inventors is a heavy one and must be proved by clear and convincing evidence." *Hess v. Advanced Cardiovascular Sys., Inc.*, 106 F.3d 976, 980 (Fed. Cir. 1997) (internal quotations omitted).

In the present case, there exists a genuine issue of material fact relating to whether Richard Sargent is properly listed as a co-inventor. Jeffery Alender, one of the named inventors of the '279 patent, testified that Sargent "wasn't really involved in [the] invention," and that Sargent did not have any involvement with the invention actually claimed in the '279 patent. (Doc. 126-19 at 16:15-23).

On the other hand, Sargent testified that he "discovered the use of urea hydrochloride in dissolving calcium carbonate" and contributed to the reduction to practice "by use of the material on various substrate and surfaces . . . [g]enerally masonry and concrete." (Doc. 131-18 at 43:18-21, 50:11-19). In addition, the testimony of Michael Williams, the Chief Operating Officer for PSL, and Sherry Knowles, a patent attorney involved in the prosecution of the '279 patent, support a finding that Sargent is properly listed as an inventor. (Doc. 139-18 at 23:34-24:16; Doc. 131-11 at 35:23-36:1). In view of this conflicting evidence of record, there exists a genuine issue of material fact relating to whether Sargent is properly named as in inventor of the '279 patent. Accordingly, EMS's Motion will be denied to the extent it seeks a finding on summary judgment that the '279 patent is invalid under 35 U.S.C. § 102(f).

V. Direct Infringement

EMS next moves for summary judgment as to the Accused Products' literal infringement of the claims of the '279 patent. (Doc. 126 at 27). EMS maintains that PSL failed to set forth sufficient scientific evidence to create a genuine issue of material fact relating to whether the urea hydrochloride in the Accused Products meets the "solubilizing calcium carbonate" limitation of the '279 patent. EMS further asserts that PSL is barred by prosecution history estoppel from asserting that the application of the Accused Products to surfaces infringes the '279 patent. In response, PSL contends that Dr. Kurtis's analysis of the Accused Products, EMS's own product literature, and the admissions of Dr. Grubbs are more than sufficient to create a genuine issue of material fact relating to the contested solubilizing calcium carbonate limitation and that prosecution history estoppel is inapplicable.

An infringement analysis involves two steps. First, the court must construe the claims, a question of law in which the scope and meaning of the asserted claims is defined. *Lacks Indus., Inc. v. McKechnie Vehicle Components USA*, Inc., 322 F.3d 1335, 1341 (Fed. Cir. 2003). Once the claim terms have been construed, the Court compares the claims, as construed, to the accused device. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350-51 (Fed. Cir. 2001). To prevail on a claim of patent infringement, a patentee must establish by a preponderance of the evidence that the accused device infringes one or more claims of the patent either literally or under the doctrine of equivalents. *Amgen Inc. v. F. Hoffman-LA Roche Ltd*., 580 F.3d 1340, 1374 (Fed. Cir. 2009). Infringement, both literal and under the doctrine of equivalents, is a question of fact. *Insituform Techs., Inc. v. Cat. Contracting, Inc.*, 161 F.3d 688, 692 (Fed. Cir. 1998). To literally infringe a claim, "every limitation set forth in [the] claim must be found in an accused product, exactly." *Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed. Cir. 1995). "If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law." *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). "A finding of infringement under the doctrine of equivalents requires a showing that the difference between the claimed invention and the accused product or method was insubstantial or that the accused product or method performs the substantially same function in substantially the same way with substantially the same result as each claim limitation of the patented product or method." *AquaTex Indus., Inc. v. Techniche Solutions, Chem. Co.*, 479 F.3d 1320, 1326 (Fed. Cir. 2007) (internal citations omitted).

A. Literal Infringement

EMS contends that PSL failed to produce scientific evidence demonstrating that the urea hydrochloride in the Accused Products actually solubilizes calcium carbonate. Specifically, EMS argues that although samples and confidential formulary data of each of the Accused Products were provided to PSL, neither of PSL's experts conducted any testing to determine whether the urea hydrochloride, as opposed to some other component of the Accused Products, solubilizes the calcium carbonate. In response, PSL contends that it has provided ample evidence to at least create a genuine issue of material fact regarding whether that the urea hydrochloride in the Accused Products solubilizes calcium carbonate. The Court agrees.

First, Dr. Kurtis performed testing with EMS's NOVAC-ACL solution on concrete samples after EMS represented NOVAC-ACL to be a solution of urea hydrochloride in a 1:1 molar ratio. (Doc. 126-22 at 15; Doc. 131-10 ¶ 20). Based on her observations of the concrete samples, Dr. Kurtis concluded that "the treatment of concrete with urea hydrochloride (the active component in NOVOC-ACL) can be used effectively to remove dispersions of calcium carbonate . . . presumably due to the conversion of insoluble calcium carbonate to a water soluble salt, such as calcium chloride." (Doc. 126-22 at 17). Additionally, EMS's own expert admitted that urea hydrochloride solubilizes calcium carbonate into a water soluble salt, (Doc. 131-12 at 7:15), and EMS has stipulated that the Accused Products contain urea hydrochloride in the molar ratio set forth in the '279 patent, (Doc. 87-12).

Next, Dr. Kurtis conducted testing with EMS Ready-Mix and EMS BlowOut, utilizing X-ray diffraction to demonstrate that treating concrete or boiler scale with these products decreased and sometimes eliminated the presence of calcium carbonate in the concrete and boiler scale samples. (Doc. 126-22 at 16-19). In light of these findings, and "based on [her] demonstration that treatment of concrete with urea hydrochloride can be used effectively to remove dispersions of calcium

carbonate," it was Dr. Kurtis's opinion that "because EMS's products contain urea hydrochloride as an active component, as admitted by EMS, they function to remove calcium carbonate from either aqueous suspensions or dispersions." (*Id*. at 21).

Finally, Dr. Kurtis performed an additional set of tests involving an analysis of the "run-off" liquid resulting from the treatment of concrete with each of the Accused Products, except EMS Syntech I. (Doc. 126-22 at 19-20; Doc. 126-23 at 2-3). Dr. Kurtis tested the "run-off" liquid for both calcium and chloride concentrations, noting that the liquid contained a significant amount of both calcium and chloride ions. In light of these results, Dr. Kurtis concluded that

> [t]he presence of Ca in these five run-off samples, then, suggests that the treatment has resulted in the conversion of insoluble calcium carbonate from the treated concrete to a soluble salt, likely calcium chloride. These results are consistent with the mechanism of action of urea hydrochloride on calcium carbonate described in claim 1 of the '279 patent.

(Doc. 126-23 at 3). PSL contends that because it is undisputed that "the mechanism of action" between calcium carbonate and hydrochloric acid produces calcium ions and chloride ions, the presence of calcium and chloride ions in the run-off served to confirm Dr. Kurtis's opinion that the urea hydrochloride in the Accused Products solubilizes calcium carbonate. (*Id.* at 6).

Dr. Kurtis's analysis and expert opinions are sufficient to create a genuine issue of material fact regarding whether the urea hydrochloride in the Accused Products, except EMS SynTech I, solubilizes calcium carbonate in accordance with the limitations of the '279 patent. While PSL argues that Dr. Kurtis failed to conduct any testing to determine whether urea hydrochloride in the amounts and concentrations in the Accused Products, absent any other ingredient, solubilizes calcium carbonate in accordance with the method of claim 1, such testing is not required to create a genuine issue of material fact as to the elements of claim 1. Claim 1 of the '279 patent recites a method to

solubilize calcium carbonate that "*includes* adding to the suspensions or dispersions a sufficient amount of urea hydrochloride to convert the calcium carbonate to a water soluble salt." It is well established that the term "including," as used in claim 1 is an "open-ended" transitional phrase and "does not exclude additional, unrecited elements or method steps." *Mars, Inc. v. H.J. Heinz Co., L.P.*, 377 F.3d 1369, 1375-76 (Fed. Cir. 2004). Thus, PSL need not establish that urea hydrochloride is the *only* ingredient in the Accused Products that solubilizes calcium carbonate. Rather, PSL need only establish that the urea hydrochloride in the Accused Products solubilizes calcium carbonate, regardless of the properties of the other components of the products that may or may not also solubilize calcium carbonate. To the extent EMS argues that PSL failed to offer any empirical data to establishes that the amount and concentration of urea hydrochloride present in the Accused Products actually solubilizes calcium carbonate, EMS plainly ignores Dr. Kurtis's analysis of the "run-off" liquid resulting from the treatment of concrete with the Accused Products and Dr. Kurtis's analysis of urea hydrochloride itself.[15] (Doc. 126-22 at 6-7; Doc. 126-23 at 2-3). Dr. Grubbs's opinion that the phosphoric and glycolic acids in the Accused Products solubilize calcium carbonate—not the urea hydrochloride—serves only to create a factual dispute on the issue. (Doc.

[15] The present case is easily distinguishable from *Abbott Labs. v. Baxter Healthcare Corp.*, 660 F. Supp. 2d 882 (N.D. Ill. 2009). In *Abbot Labs.*, the patentee failed create a genuine issue of material fact as to literal infringement because the patentee's expert did not offer any empirical test results to support the patentee's scientific theories of infringement. *Id*. at 888-89. Here, Dr. Kurtis provides a variety of empirical testing to support her opinion that the urea hydrochloride in the Accused Products solubilizes calcium carbonate in accordance with the limitations of the '279 patent.

126-17 at 23). This opinion does not demonstrate, as EMS suggests, a lack of material dispute relating to urea hydrochloride's role in the Accused Products.[16]

B. Doctrine of Equivalents

EMS next contends that PSL is barred by prosecution history estoppel from asserting that the application of urea hydrochloride to surfaces that have been exposed to hard water, concrete, or boiler scale infringes the '279 patent. (Doc. 126 at 41). In response, PSL contends that prosecution history estoppel is inapplicable to the present case because PSL does not assert a theory of infringement under the doctrine of equivalents. (Doc. 131 at 37). The Court agrees.

"Prosecution history estoppel ensures that the doctrine of equivalents remains tied to its underlying purpose," by requiring that where an amendment narrows the scope of the claims, and that amendment is adopted for a substantial reason related to patentability, the amendment gives rise to a presumption of surrender for all equivalents that reside in "the territory between the original claim and the amended claim." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 734, 740 (2002). "Whether prosecution history estoppel applies to a particular argument, and thus whether the doctrine of equivalents is available for a particular claim limitation, is a question of law." *Intervet Inc. v. Merial Ltd.*, 617 F.3d 1282, 1290-91 (Fed. Cir. 2010). Here, PSL does not assert that the Accused Products infringe under the doctrine of equivalents. Rather, PSL contends that the Accused Products literally infringe the '279 patent. Accordingly, the doctrine of prosecution history estoppel is inapplicable to the PSL's present infringement allegations.

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[16] It should also be noted that a number of the studies conducted by Dr. Kurtis that EMS relies on in arguing that PSL failed to prove each element of claim 1 were conducted by Dr. Kurtis *before* EMS was compelled to provide PSL with samples of the Accused Products for testing and therefore necessarily did not include empirical analysis of each of the Accused Products.

VI. Indirect Infringement

"When a defendant participates in or encourages infringement but does not directly infringe a patent, the normal recourse under the law is for the court to apply the standards for liability under indirect infringement." *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380 (Fed. Cir. 2007). A finding of indirect infringement requires, as a predicate, a finding that some party directly infringes and thus performs each step of the claimed method. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004). "Absent direct infringement of the patent claims, there can be neither contributory infringement nor inducement of infringement." *Met-Coil Sys. Corp. v. Korners Unlimited, Inc.*, 803 F.2d 684, 687 (Fed. Cir. 1986) (internal citations omitted). Thus, as a starting point for a claim of indirect infringement, a patentee must first establish direct infringement of the claims at issue. *Id*.

In the present case, EMS contends that PSL "failed to set forth any evidence that any party, let alone EMS, infringes each step of the method claims asserted." (Doc. 126 at 35). This argument is not supported by the record. As set forth above, PSL creates a genuine issue of material fact relating to whether the urea hydrochloride in the Accused Products solubilizes calcium carbonate as set forth in claim 1 of the '279 patent, and EMS has stipulated that the Accused Products contain urea hydrochloride formed from a molar ratio of urea to hydrochloric acid between 1:4 and 4:1. (Doc. 87-4). EMS additionally stipulated that it "instructs, directs, and trains customers, distributors, and end users to use the Accused Products according to the directions provided on each Accused Product and/or directions provided by EMS," (Doc. No. 131-18 ¶ 6), and that it's "customers or end-users . . . use EMS Accused Products . . . in a manner as indicated by directions for each EMS Accused Product or in a manner direct by each EMS Accused Product," (*id*. ¶ 4). Furthermore, the record

contains a videotaped deposition of EMS's customer TARMAC, who demonstrated use of one of the Accused Products to remove concrete from a truck, (Doc. No. 131-21 9:1-11), as well as evidence of the directions and marketing materials provided by EMS with each of the Accused Products, aside from EMS SynTech I, (Doc. 131-5). Such evidence is sufficient to create a genuine issue of material fact as to whether the '279 patent is directly infringed by use of each of the Accused Products, except EMS Syntech I, which will be addressed separately in Section VII.B.6.

A. Contributory Infringement

"A party is liable for contributory infringement if that party sells, or offers to sell, a material or apparatus for use in practicing a patented process." *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 850 (Fed. Cir. 2010). "That 'material or apparatus' must be a material part of the invention, have no substantial noninfringing uses, and be known (by the party) to be especially made or especially adapted for use in an infringement of such patent." 35 U.S.C. § 271(c); *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1312 (Fed. Cir. 2005).

In the present case, EMS contends that PSL cannot establish contributory infringement of the '279 patent because urea hydrochloride is a staple article or commodity of commerce suitable for substantial non-infringing use. However, the question of whether *urea hydrochloride* itself is suitable for substantial non-infringing use is not relevant to the present contributory infringement analysis. Rather, the relevant question is whether the *Accused Products* are staple articles of commerce with substantial non-infringing use, and EMS submits no argument or evidence to create a genuine issue of material fact as to whether the *Accused Products* are staple articles of commerce. *See Hodosh v. Block Drug Co., Inc.*, 833 F.2d 1575, 1577 (Fed. Cir. 1987) (rejecting the accused infringer's argument that the contributory infringement analysis focuses on the admittedly staple ingredient of

the accused product, finding the argument to be "refuted by the language of § 271(c), which deals with the material actually sold by the accused and the uses made of it by its purchasers").

EMS next contends that the Accused Products were not especially made or adapted for use in an infringing manner as required for a finding of contributory infringement because the urea hydrochloride was not included in the Accused Products to solubilize calcium carbonate, but rather to increase the reaction rate of other acids. In support of this contention, EMS cites the expert report of Dr. Grubbs, wherein Dr. Grubbs provides his opinion that the Accused Products do not contain a high enough concentration of urea hydrochloride to solubilize calcium carbonate. (Doc. 126-14 at 24, 40). However, in light of the contrary evidence in the record, including Dr. Kurtis's previously discussed expert reports, Dr. Grubbs's opinions serve only to create a genuine issue of material fact as to whether the Accused Products were especially made or especially adapted for use in the infringement of the '279 patent.

B. The Accused Products

Finally, EMS contends that PSL has failed to create a genuine issue of material fact relating to whether the Accused Products individually infringe the '279 patent. The majority of EMS's arguments in this section are duplicative of previously raised arguments. However, for the sake of completeness, the Court will address each of the invalidity contentions for each of the Accused Products.

1. EMS Ready Mix

First, EMS contends that the EMS Ready Mix does not infringe the '279 patent because it is the phosphoric and glycolic acid, not the urea hydrochloride that is solubilizing calcium carbonate. Second, EMS argues that PSL failed to raise a genuine issue of material fact as to the product's infringement of the '279 patent because PSL has not presented evidence that the product's solubilization of calcium carbonate is achieved by adding a sufficient amount of urea hydrochloride.[17] These arguments were addressed and rejected in Section V.A of the present Order. Next, EMS maintains that the product label for EMS Ready Mix states that it can be utilized for the removal of concrete, not for solubilization of calcium carbonate. However, whether or not the removal of concrete in the manner indicated in EMS's product literature meets to solubilization of calcium carbonate element of claim 1 of the '279 patent is a question for the jury, and EMS does not contend that PSL fails to create a genuine issue regarding this factual dispute. Finally, EMS repeats its arguments regarding substantial non-infringing use of urea hydrochloride and prosecution history estoppel. These arguments were considered and rejected in Sections VI.A and V.B of the present Order, respectively.

2. EMS BlowOut

EMS contends that it's Blow Out product does not infringe the '279 patent because it is the phosphoric and glycolic acid, not the urea hydrochloride that is solubilizing calcium carbonate. Second, EMS argues that PSL failed to raise a genuine issue of material fact as to the product's infringement of the '279 patent because it has not presented evidence that solubilizing calcium

[17] The chart attached to EMS's Motion for Summary Judgement at Doc. 126-26 further contends that PSL fails to create a genuine issue of material fact relating to the alleged contributory/inducement of infringement based upon its instructions provided to third parties. This argument was also addressed and rejected in Section VI of this Order. (*See* Doc. 131-5).

carbonate by using Blow Out is achieved by adding a sufficient amount of urea hydrochloride. These arguments were addressed and rejected in Section V.A of the present Order. Next, EMS argues that the urea hydrochloride in BlowOut is a staple article or commodity of commerce suitable for substantial noninfringing use. This argument was addressed and rejected in Section VI.A. EMS also maintains that the product label for BlowOut states that it can be utilized to dissolve calcium, and does not teach, promote or direct the user to use the product to dissolve calcium carbonate. However, whether or not the removal of calcium in the manner indicated in EMS's product literature meets the solubilization of calcium carbonate element of claim 1 of the '279 patent is a question for the jury, and EMS does not contend that PSL fails to create a genuine issue regarding this factual dispute. Finally, EMS repeats its arguments regarding prosecution history estoppel, which were considered and rejected in Section V.B of the present Order.

3. EMS SynTech pH

EMS maintains that PSL fails to create a genuine issue of material fact relating to whether the SynTech pH infringes the '279 patent because EMS provides no instructions as to how to use SynTech pH to solubilize calcium carbonate. This argument is not supported by the record. EMS's SynTech pH product literature states that "SynTech pH can be simply added to your water or become part of a self-monitoring application system you may currently use." (Doc. 42-14 at 2). Next, EMS repeats its argument that urea hydrochloride is a staple article or commodity of commerce suitable for substantial noninfringing use, an argument addressed and rejected in Section VI.A of the present Order.

4. EMS Barracuda

EMS contends that its Barracuda Product does not infringe the '279 patent because it is the phosphoric and glycolic acid, not the urea hydrochloride that is solubilizing calcium carbonate. Second, EMS argues that PSL failed to raise a genuine issue of material fact as to infringement because it has not presented evidence that solubilizing calcium carbonate by using the Barracuda Product is achieved by adding a sufficient amount of urea hydrochloride. These arguments were addressed and rejected in Section V.A of the present Order. Finally, EMS repeats its arguments regarding substantial non-infringing use of urea hydrochloride and prosecution history estoppel. These arguments were considered and rejected in Sections VI.A and V.B of the present Order, respectively.

5. EMS Basic CR

EMS maintains that PSL failed to raise a genuine issue of material fact for trial regarding whether the solubilization of calcium carbonate by using Basic CR is achieved by adding a sufficient amount of urea hydrochloride. The Court disagrees. As previously discussed in Section V.A, Dr. Kurtis performed a run-off analysis using Basic CR, which, in addition to her other testing, is sufficient to create a genuine issue of material fact relating to this element. (Doc. 126-22 at 2-3). Finally, EMS repeats its arguments regarding substantial non-infringing use of urea hydrochloride and prosecution history estoppel. These arguments were considered and rejected in Sections VI.A and V.B of the present Order, respectively.

6. EMS SynTech I

With respect to EMS SynTech I, EMS stipulated that it contains urea hydrochloride in a molar ratio of urea to hydrochloric acid between 1:4 and 4:1. (Doc. No. 131-10 ¶ 3.) EMS additionally stipulated that it "instructs, directs, and trains customers, distributors, and end users to use the

Accused Products according to the directions provided on each Accused Product and/or directions provided by EMS," (Doc. No. 131-10 ¶ 6), and that it's "customers or end-users . . . use EMS Accused Products . . . in a manner as indicated by directions for each EMS Accused Product or in a manner direct by each EMS Accused Product," (*id*. ¶ 4). EMS was also ordered to provide the unredacted formula and samples of Syntech I to PSL for analysis. Nevertheless, Dr. Kurtis did not report the results of any empirical tests relating to SynTech I, and there is no indication that Dr. Kurtis analyzed the "run off" liquid for concrete treated with SynTech I. Furthermore, the record is devoid of any directions or instructions provided by EMS to its customers or end-users describing the manner of using Syntech I. In fact, the only evidence of record relating to SynTech I indicates that because SynTech I is an inert ingredient sold to other manufacturers for use in their end products in the herbicide/pesticide field, EMS does not produce product literature or other directions specific to the use of SynTech I. (Doc. 42-9 ¶ 7). EMS contends that in the absence of any instructions or directions from EMS indicating how customers should use SynTech I or any evidence demonstrating how purchasers actually use SynTech I, there can be no contributory infringement of the '279 patent by EMS. The Court agrees.

As previously discussed, a finding of indirect infringement requires, as a predicate, a finding that some party directly infringes and thus performs each step of the claimed method. *Dynacore Holdings*, 363 F.3d at 1272. Accordingly, "[a]bsent direct infringement of the patent claims, there can be neither contributory infringement nor inducement of infringement." *Met-Coil Sys.*, 803 F.2d at 687. In the present case, the '279 patent claims a method of *using* urea hydrochloride to solubilize aqueous suspensions or dispersions of calcium carbonate. However, there is no evidence in the record demonstrating that SynTech I is used in the manner claimed in the '279 patent. In fact, there is no

evidence in the record to establish any particular manner in which SynTech I is used. Accordingly, PSL fails to create a genuine issue of material fact as to the direct infringement of the '279 patent through the use of SynTech I, and summary judgment will be granted in favor of EMS to the extent EMS seeks a finding that because the use of SynTech I does not directly infringe the '279 patent, EMS has not contributed to or induced infringement of the '279 patent with SynTech I.

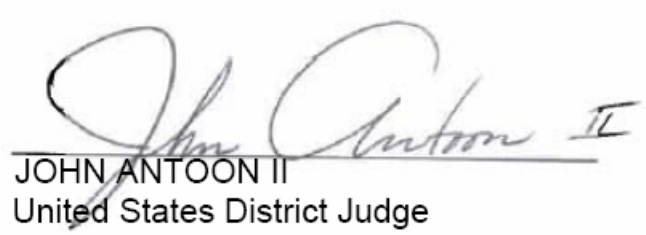
7. EMS Eximo Product

EMS maintains that PSL failed to raise a genuine issue of material fact for trial regarding whether the solubilization of calcium carbonate with Eximo is achieved by adding a sufficient amount of urea hydrochloride. The Court disagrees. As previously discussed in Section V.A, Dr. Kurtis performed a run-off analysis with Eximo, which in addition to the other testing performed by Dr. Kurtis, is sufficient to create a genuine issue of material fact relating to this element. (Doc. 126-23 at 2-3). Finally, EMS repeats its arguments regarding substantial non-infringing use of urea hydrochloride and prosecution history estoppel. These arguments were considered and rejected in Sections VI.A and V.B of the present Order, respectively.

Conclusion

Based on the foregoing, the Motion for Partial Summary Judgment that U.S. Patent No. 5,672,279 is Not Invalid by Peach State Labs. Inc., (Doc. 125), is **GRANTED**. The Motion and Memorandum for Summary Judgment as to Invalidity and Non-Infringement by Environmental Manufacturing Solutions, LLC, (Doc. 126), is **GRANTED in part** and **DENIED in part**. The Motion is **GRANTED** to the extent it seeks a finding that EMS did not contribute to the infringement of the '279 patent by producing and instructing others to use the EMS SynTech I product. The Motion is **DENIED** in all other respects.

DONE and **ORDERED** in Orlando, Florida on March 31, 2011.



JOHN ANTOON II
United States District Judge

Copies furnished to:
Counsel of Record