

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

COT'N WASH, INC. and)
BIG 3 PACKAGING, LLC,)
)
Plaintiffs,)
)
v.) Civ. No. 12-650-SLR
)
HENKEL CORPORATION,)
THE DIAL CORPORATION, and)
HENKEL CONSUMER GOODS INC.,)
)
Defendants.)

COT'N WASH, INC. and)
BIG 3 PACKAGING, LLC,)
)
Plaintiffs,)
)
v.) Civ. No. 12-651-SLR
)
THE SUN PRODUCTS)
CORPORATION,)
)
Defendant.)


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MEMORANDUM OPINION

Dated: August 14, 2014
Wilmington, Delaware


ROBINSON, District Judge

I. INTRODUCTION

On May 23, 2012, Big 3 Packaging, LLC (“B3P”) and Cot’n Wash, Inc. (“Cot’n Wash”) (collectively, “plaintiffs”) filed suit in this district against Henkel Corporation, The Dial Corporation (“Dial”), and Henkel Consumer Goods, Inc. (collectively, “the Henkel defendants”) alleging infringement of United States Patent No. 6,037,319 (“the ‘319 patent”). (Civ. No. 12-650, D.I. 1) On the same day, plaintiffs asserted the ‘319 patent against The Sun Products Corporation (“Sun”) in a related case before this court.¹ (Civ. No. 12-651, D.I. 1)

The Henkel defendants and Sun (collectively, “defendants”) answered plaintiffs’ complaints on July 30, 2012 and asserted counterclaims against plaintiffs seeking declaratory judgments of non-infringement and invalidity of the ‘319 patent. (Civ. No. 12-650, D.I. 11 at 18-19, ¶¶ 17-27; Civ. No. 12-651, D.I. 9 at 12-14, ¶¶ 13-26) On August 21, 2012, plaintiffs answered defendants’ counterclaims. (Civ. No. 12-650, D.I. 17; Civ. No. 12-651, D.I. 13) On August 15, 2013, by stipulation, the Henkel defendants filed their first amended answer, affirmative defenses, and counterclaims, adding affirmative defenses of patent invalidity under 35 U.S.C. § 112 and inequitable conduct, as well as a counterclaim of patent unenforceability due to inequitable conduct. (Civ. No. 12-650, D.I. 56 at 14-23, ¶¶ 12-39; *id.* at 39-41, ¶¶ 59-69) On September 3, 2013, plaintiffs answered the Henkel defendants’ new affirmative defenses and counterclaim. (Civ. No. 12-650, D.I. 62)

¹ The court entered a single scheduling order in both cases, which provides for coordinated discovery and claim construction proceedings. (See Civ. No. 12-650, D.I. 22; Civ. No. 12-651, D.I. 20)

On January 31, 2014, Sun filed a motion for leave to amend its answer, affirmative defenses, and counterclaims. (Civ. No. 12-651, D.I. 152) On February 7, 2014, the Henkel defendants filed a similar motion for leave to file a second amended answer, affirmative defenses, and counterclaims. (Civ. No. 12-650, D.I. 145) On July 11, 2014, the court denied Sun's motion with respect to the addition of false marking counterclaims, but granted the motion with respect to the inequitable conduct counterclaim. (Civ. No. 12-651, D.I. 225) On the same day, the court denied the Henkel defendants' motion. (Civ. No. 12-650, D.I. 235)

Presently before the court are defendants' motions for summary judgment of invalidity (Civ. No. 12-650, D.I. 159; Civ. No. 12-651, D.I. 170) and non-infringement (Civ. No. 12-650, D.I. 168; Civ. No. 12-651, D.I. 166). Defendants also filed motions to exclude the testimony and opinions of Drs. Di Vincenzo, Kong, and Gering (Civ. No. 12-650, D.I. 161) and Robertson Microlit's and Mibrobac's testing (Civ. No. 12-651, D.I. 167), as well as a motion to strike the March 6 supplemental expert reports of Drs. Di Vincenzo and Kong (Civ. No. 12-650, D.I. 167). The court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

II. BACKGROUND

A. Parties

B3P is a limited liability company organized and existing under the laws of the State of New Jersey, with its principal place of business in Philadelphia, Pennsylvania. (Civ. No. 12-650, D.I. 1 at ¶ 5; Civ. No. 12-651, D.I. 1 at ¶ 5) B3P is the assignee of the '319 patent. (*Id.*) Cot'n Wash is a corporation organized and existing under the laws of

Pennsylvania, with its principal place of business in Philadelphia, Pennsylvania. (Civ. No. 12-650, D.I. 1 at ¶ 6; Civ. No. 12-651, D.I. 1 at ¶ 6) Cot'n Wash is an exclusive licensee of the '319 patent in the laundry products field. (*Id.*)

Henkel Corporation, a subsidiary of the German company Henkel AG & Co. KGaA, is a corporation organized and existing under the laws of the State of Delaware with a place of business in Rocky Hill, Connecticut. (Civ. No. 12-650, D.I. 1 at ¶ 9) Henkel Consumer Goods, a subsidiary of Henkel Corporation, is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in Scottsdale, Arizona. (*Id.* at ¶ 8) Dial, a subsidiary of Henkel Consumer Goods, is a corporation organized and existing under the laws of the State of Delaware, with a place of business in Scottsdale, Arizona. (*Id.* at ¶ 7) Sun is a private company organized and existing under the laws of the State of Delaware, with its principal place of business in Wilton, Connecticut. (Civ. No. 12-651, D.I. 1 at ¶ 7)

B. The Patent-in-Suit

Plaintiffs assert that certain of defendants' products infringe claims 1, 3, 6, 7, and 8² of U.S. Patent No. 6,037,319 ("the '319 patent"), titled "Water-Soluble Packets Containing Liquid Cleaning Concentrates," filed April 1, 1997 and issued March 14, 2000. The '319 patent is directed to "[w]ater-soluble packets containing liquid cleaning concentrates" which "are stable despite the presence of any minor amount of water in the cleaning concentrates." ('319 patent, Abstract) Specifically, "the invention provides

²Claim 8 is only asserted against the Henkel defendants.

a stable water-soluble cleaning packet comprising an uncoated, single-layered containment system containing a liquid cleaning composition.” (*Id.* at 2:34-37)

III. STANDARD OF REVIEW

“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 415 U.S. 574, 586 n.10 (1986). A party asserting that a fact cannot be—or, alternatively, is—genuinely disputed must support the assertion either by citing to “particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for the purposes of the motions only), admissions, interrogatory answers, or other materials,” or by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party has carried its burden, the nonmovant must then “come forward with specific facts showing that there is a genuine issue for trial.” *Matsushita*, 415 U.S. at 587 (internal quotation marks omitted). The court will “draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

To defeat a motion for summary judgment, the non-moving party must “do more than simply show that there is some metaphysical doubt as to the material facts.”

Matsushita, 475 U.S. at 586-87; see also *Podohnik v. U.S. Postal Service*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment “must present more than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue”) (internal quotation marks omitted). Although the “mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment,” a factual dispute is genuine where “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson v. Liberty Lobby, Inc.*, 411 U.S. 242, 247-48 (1986). “If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted.” *Id.* at 249-50 (internal citations omitted); see also *Celotex Corp. v. Catrett*, 411 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated “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 that party will bear the burden of proof at trial”).

IV. DISCUSSION

A. The ‘319 Patent Claims

Claim 1 is directed to and recites:

A cleaning packet comprising a liquid cleaning concentrate and a water-soluble container containing said concentrate, wherein said cleaning concentrate comprises less than 7.5 wt. % water, and said container comprises a single layer film having an internal surface directly contacting said concentrate, and having an external surface which is an outermost portion of said cleaning packet.

(‘319 patent, 9:9-15) Claim 3 is dependent on claim 1, and recites:

The cleaning packet according to claim 1, wherein said cleaning concentrate comprises less than 5.0 wt. % water.

(*Id.* at 9:18-19) Claim 6 is also dependent on claim 1, and further recites:

The cleaning packet according to claim 1, wherein the single layer film has a thickness of about 2 mils to about 4 mils.

(*Id.* at 9:25-27) Claim 7, also dependent on claim 1, recites:

The cleaning packet according to claim 1, wherein the single layer film is a polyvinyl alcohol film.

(*Id.* at 9:28-29) Claim 8 is further dependent on claim 7, and recites:

The cleaning packet according to claim 7, wherein the container consists essentially of said polyvinyl alcohol film.

(*Id.* at 9:30-31)

B. Infringement

1. Standard

A patent is infringed when a person “without authority makes, uses or sells any patented invention, within the United States . . . during the term of the patent.” 35 U.S.C. § 271(a). A two-step analysis is employed in making an infringement determination. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). First, the court must construe the asserted claims to ascertain their meaning and scope. See *id.* Construction of the claims is a question of law subject to de novo review. See *Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998). The trier of fact must then compare the properly construed claims with the accused infringing product. See *Markman*, 52 F.3d at 976. This second step is a question of fact. See *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998).

“Direct infringement requires a party to perform each and every step or element of a claimed method or product.” *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373,

1378 (Fed. Cir. 2007), *overruled on other grounds by* 692 F.3d 1301 (Fed. Cir. 2012). “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). If an accused product does not infringe an independent claim, it also does not infringe any claim depending thereon. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989). However, “[o]ne may infringe an independent claim and not infringe a claim dependent on that claim.” *Monsanto Co. v. Syngenta Seeds, Inc.*, 503 F.3d 1352, 1359 (Fed. Cir. 2007) (quoting *Wahpeton Canvas*, 870 F.2d at 1552) (internal quotations omitted). A product that does not literally infringe a patent claim may still infringe under the doctrine of equivalents if the differences between an individual limitation of the claimed invention and an element of the accused product are insubstantial. *See Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 24 (1997). The patent owner has the burden of proving infringement and must meet its burden by a preponderance of the evidence. *See SmithKline Diagnostics, Inc. v. Helena Lab. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988) (citations omitted).

When an accused infringer moves for summary judgment of non-infringement, such relief may be granted only if one or more limitations of the claim in question does not read on an element of the accused product, either literally or under the doctrine of equivalents. *See Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1376 (Fed. Cir. 2005); *see also TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1369 (Fed. Cir. 2002) (“Summary judgment of noninfringement is ... appropriate where the patent owner’s

proof is deficient in meeting an essential part of the legal standard for infringement, because such failure will render all other facts immaterial.”). Thus, summary judgment of non-infringement can only be granted if, after viewing the facts in the light most favorable to the non-movant, there is no genuine issue as to whether the accused product is covered by the claims (as construed by the court). See *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1304 (Fed. Cir. 1999).

2. Analysis

a. The Henkel defendants’ motion for summary judgment of non-infringement

Plaintiffs allege that the Henkel defendants infringe independent claim 1 and dependent claims 3, 6-8 of the ‘319 patent through the sale of their Purex UltraPacks products, which include “Free and Clear” and “Mountain Breeze” versions. (Civ. No. 12-650, D.I. 166, ex. 1 at 2, 4) Henkel moves for summary judgment on the following grounds: (1) the reformulated products do not infringe any asserted claim; (2) the original versions of the accused products do not infringe any asserted claim; (3) Henkel Corporation and Henkel Consumer Goods are not proper parties to this action; and (4) plaintiffs’ inducement claim is improper. (Civ. No. 12-650, D.I. 185)

i. Reformulated products

After plaintiffs filed their complaint, Dial ceased production of the original version of the accused products on July 18, 2012 and began producing a reformulated version containing more than 7.5 wt. % water. There is no dispute that, under the court’s claim construction, the reformulated products do not infringe the asserted claim. The Henkel defendants seek summary judgment as to all accused products manufactured after July

18, 2012.

Plaintiffs respond that the reformulated products are not at issue in this suit as plaintiffs have never accused them of infringing. (Civ. No. 12-650, D.I. 217 at 9) Plaintiffs, however, make clear that they “are not **conceding** that Henkel’s reformulated products do not infringe. Rather, [p]laintiffs merely have not pursued any claims against them in this litigation, so that any disputes over those products must wait for another day.” (*Id.*)

The Henkel defendants respond that plaintiffs placed the reformulated products squarely at issue. For instance, the complaint is not limited to the original Purex UltraPacks, but broadly alleges that Henkel infringed the ‘319 patent by “making, using, selling, offering for sale **water-soluble laundry packets, including without limitation, Purex UltraPacks, Mountain Breeze and Purex UltraPacks, free and clear**” (Civ. No. 12-650, D.I. 1 at ¶ 32) (emphasis added) Additionally, plaintiffs have not withdrawn a request for a permanent injunction (*Id.* at 10), necessary only if plaintiffs considered Henkel to still be infringing even after the introduction of the reformulated products. Plaintiffs further pursued discovery of “Henkel Products,” defined in plaintiffs’ notices as “Henkels’ water-soluble laundry packets, such as Purex, Purex UltraPacks, Mountain Breeze and Purex UltraPacks, free and clear, and other water-soluble, liquid laundry products.” (Civ. No. 12-650, D.I. 227, ex. 6 at ¶ 4; ex. 7 at ¶ 4) In response to the Henkel defendants’ objection to this broad definition (*Id.* at ex. 8 at 3-4), plaintiffs confirmed that “Henkel Products’ . . . includes, but [is] not limited to the Purex UltraPacks in Mountain Breeze, Free and Clear and Oxy, and all iterations in their

formulas.” (*Id.* at ex. 9 at 3) Plaintiffs further requested all product data sheets “from the fall of 2012 to the present” and all documents regarding “Henkel’s sales and distribution from May 2012 to the present.” (*Id.* at ex. 12 at 1; ex. 13 at 1, ex. 14 at 1; ex. 15 (“batch sheets and formula cards for the Purex UltraPacks manufactured for commercial sale from inception of manufacturing to the present”))³ When the Henkel defendants questioned plaintiffs as to this extensive discovery, plaintiffs responded that “those documents go to inducement and secondary considerations of non[obviousness].” (*Id.* at ex. 16 at 1)⁴ To the extent that plaintiffs have put such products at issue, plaintiffs must either provide the Henkel defendants with a covenant not to sue, or the court will enter judgment based on the evidence before it.

ii. Original products

The Henkel defendants also move for summary judgement that the original products do not infringe as plaintiffs have no admissible evidence to show such infringement under plaintiff’s construction. (Civ. No. 12-650, D.I. 185 at 12) To the extent that the court has construed the water content to be measured “as formulated,” the test results obtained by Karl Fischer titration, used to test the total water content “contained in” the final packet, are excluded as not relevant to the water content as

³As noted, the Henkel defendants switched to the reformulated products on July 18, 2012. The Henkel defendants note that product data sheets for the reformulated products were produced by at least May 2013. (Civ. No. 12-650, D.I. 227 at ¶ 16)

⁴Henkel argues that inducement relies on direct infringement and sales information can only be a proper secondary consideration if the patent covers the product.

formulated.⁵

Under the court's claim construction, the proper inquiry is the water content "as formulated" (that argued for by defendants). As the Henkel defendants' specifications call for a target water content near 4%,⁶ there exist no genuine issues of material fact with respect to whether the Henkel defendants' original products infringed the '319 patent.⁷ The Henkel defendants' motion for summary judgment of non-infringement is denied in this regard. (Civ. No. 12-650, D.I. 168) Moreover, consistent with the court's claim construction and analysis,⁸ the court is inclined to enter summary judgment *sua sponte* in favor of plaintiffs that the Henkel defendants' original products infringed the

⁵In arguing for their proposed construction of the water content, plaintiffs agreed that under defendants' construction, "testing the accused product's water percentage is completely irrelevant because the only testing that is relevant is that of the liquid 'to be placed' in the container, when the liquid is not actually part of the container and not an infringing product." (Civ. No. 12-650, D.I. 57 at 12-13) Defendants' motions to exclude are granted with respect to plaintiffs' product testing. (Civ. No. 12-650, D.I. 161; Civ. No. 12-651, D.I. 167) As the Henkel defendants' motion to strike the March 6 supplemental expert reports of Drs. Di Vincenzo and Kong refer to such testing, this motion is denied as moot. (Civ. No. 12-651, D.I. 167)

⁶See, e.g., specification sheets specifying water contents ranging from 3.996% to 4.0351%. (Civ. No. 12-650, D.I. 218, ex. U at HEN274574; ex. V at HEN16770; exs. W, X, Y, Z at HEN262600, HEN416029, HEN277464, HEN494695; see also Civ. No. 12-650, D.I. 199, ex. A at 12-15, 37-38) The Mountain Breeze data sheets specify water contents ranging from 3.9877% to 3.9958%. (See Civ. No. 12-650, D.I. 218, ex. AA at HEN16774; ex. CC at HEN262608; ex. DD at 494703; see also Civ. No. 12-650, D.I. 199, ex. A at 7-11, 38)

⁷Indeed, defendants' expert, Dr. Cairns, explained that, "[r]egardless of whether the water content of the liquid cleaning concentrate is determined at the time the liquid cleaning concentrate is prepared or after it is placed in the packet (but at the time of manufacture), there will be no quantitative difference in the water content." (Civ. No. 12-650, D.I. 78 at ¶ 48)

⁸See *infra* as to Sun's motion for summary judgment.

'319 patent.⁹ See *Anderson v. Wachovia Mortg. Corp.*, 621 F.3d 261, 280 (3d Cir. 2010) (quoting *Celotex Corp. v. Catrett*, 477 U.S. 317, 326 (1986)) (“[D]istrict courts are widely acknowledged to possess the power to enter summary judgments *sua sponte*, so long as the losing party was on notice that [it] had to come forward with all of [its] evidence.”); see also *Talecris Biotherapeutics, Inc. v. Baxter Int'l, Inc.*, 510 F. Supp. 2d 356, 362 (D. Del. 2007) (This court has held that when one party moves for summary judgment against an adversary, Fed. R. Civ. P. 54(c) and 56, when read together, give the court the power to render a summary judgment for the adversary if it is clear that the case warrants that result, even though the adversary has not filed a cross-motion for summary judgment.). The propriety of doing so will be addressed at the pre-trial conference.

iii. Whether Henkel Consumer Goods and Henkel Corporation are proper parties to this action

The Henkel defendants further move for summary judgment in favor of both Henkel Consumer Goods and Henkel Corporation because they are not proper parties (but merely have a corporate relationship to Dial) to this action, arguing that Dial alone made, used, and sold the accused products. (Civ. No. 12-650, D.I. 185 at 18)¹⁰

⁹More specifically, the specifications for the original products call for water contents that fall within the scope of independent claim 1 and dependent claim 3. Arguments addressing dependent claims 6-8, having to do with the film of the cleaning packets, were not included in the summary judgment briefing.

¹⁰Defendants had previously requested that plaintiffs stipulate to summary judgment with respect to Henkel Corporation and Henkel Consumer Goods. (Civ. No. 12-650, D.I. 186 at ¶ 3) “Plaintiffs did not disagree that Dial was the only entity that ‘makes, uses, offers to sell, or sells’ the accused products, [but] they were only willing to consider Henkel’s other requests as part of a larger stipulation on unrelated issues.” (*Id.*)

Plaintiffs argue that there is conflicting testimony as to whether Dial or Henkel Consumer Goods manufactured and sold the products and, regardless, Henkel Consumer Goods' personnel were thoroughly involved in marketing and branding the accused products. Therefore, Henkel Consumer Goods may be liable for inducing infringement even if Dial bears sole responsibility for the manufacture and sale. (See Civ. No. 12-650, D.I. 217 at 13-17) The court agrees that there is a question of fact as to the extent of Henkel Consumer Goods' involvement in the accused products. The Henkel defendants' motion for summary judgment is denied with respect to Henkel Consumer Goods. (Civ. No. 12-650, D.I. 168) As plaintiffs have stated that they do not oppose the Henkel defendants' motion as it relates to Henkel Corporation (Civ. No. 12-650, D.I. 217 at 13 n.8),¹¹ summary judgment is granted with respect to Henkel Corporation. (Civ. No. 12-650, D.I. 168)

iv. Indirect infringement

The Henkel defendants move for summary judgment on the grounds that plaintiffs can only receive one recovery on the sales of the accused products and, because plaintiffs' theory of induced infringement relies on Dial's customers' use of the accused products, any possible recovery under that claim would be entirely duplicative of the recovery for the alleged direct infringement. (Civ. No. 12-650, D.I. 185 at 21) Plaintiffs respond that questions of double recovery are for the damages phase and, at this stage, plaintiffs may pursue multiple claims under any applicable legal theory. (Civ.

¹¹The Henkel defendants request fees and cost associated with plaintiffs' continued refusal to dismiss Henkel Corporation from the case until now. (Civ. No. 12-650, D.I. 226 at 3 n.1)

No. 12-650, D.I. 217 at 17) The court agrees that the question of double recovery is proper at the damages phase. It, therefore, declines to deprive plaintiffs of a proper infringement contention. The Henkel defendants' motion for summary judgment is denied in this regard. (Civ. No. 12-650, D.I. 168)

b. Sun's motion for summary judgment of non-infringement

Plaintiffs assert that Sun infringes claims 1, 3, 6, and 7 of the '319 patent through its unit dose laundry detergents. Sun moves for summary judgment, arguing that it does not infringe under the proper construction (that adopted by the court) as plaintiffs have not presented any evidence that the cleaning composition to be placed into Sun's unit dose packets contains less than 7.5% water. (Civ. No. 12-651, D.I. 183 at 17)

Plaintiffs argue that there are genuine issues of fact as to whether Sun infringes even under its own construction of water content, that "the water content test results showing water contents **after** packaging are circumstantial evidence of the water contents of the detergent **before** packaging." (Civ. No. 12-651, D.I. 205 at 12-16) (emphasis in brief)

Their argument continues that the "jury could reasonably infer from that evidence that the pre-packaging water contents likewise must have been within the claimed range – that the margins are simply too large to be explained on any other basis." (*Id.*)¹² As the court has adopted a construction requiring the water content to be less than 7.5% as

¹²Sun argues that this argument was made for the first time on summary judgment and should be stricken. (Civ. No. 12-651, D.I. 214 at 1) It notes that plaintiffs' infringement charts rely on plaintiff's post-packaging Karl Fischer tests solely to allege that Sun's products post-packaging meet the water content limitation. (See Civ. No. 12-651, D.I. 206, exs. V, W, X) (Claim Charts mentioning Karl Fischer test results)) This argument is further based on attorney argument and not supported by expert testimony.

formulated, the test results are not relevant¹³ (even as circumstantial evidence of infringement) and have been excluded as noted above. As the record shows that, as formulated, Sun's products are not infringing,¹⁴ Sun's motion for summary judgment of non-infringement is granted. (Civ. No. 12-651, D.I. 166)¹⁵

C. Invalidity

All defendants move for summary judgement that the '319 patent is invalid for the following reasons: (1) the asserted claims lack novelty and are anticipated under 35 U.S.C. 102(b); (2) the claimed product was in public use more than one year prior to the April 1, 1997 application date; and (3) the asserted claims are obvious under 35 U.S.C.

¹³The one relevant exception also indicates that the results were outside the claimed water content. Sun provided plaintiffs unopened packages – after manufacture but before shipment to customers – with each of the formulas that were then being made and sold. (Civ. No. 12-651, D.I. 184, ex 5A at ¶¶ 152-56) Plaintiffs' expert tested only one of the five products, which test confirmed that the water content of Sun's products is greater than 7.5%. (*Id.* at ex. 19) Sun's expert, Dr. David E. Bugay, also tested packets from all five formulas and determined that the water content was all above 9.0%. (See *id.* at ex. 6 at ¶¶ 31-33)

¹⁴Sun's expert, Dr. Shaun Kennedy, explained that "Sun formulates its products to contain more than 7.5% water" – the Blue formulas requiring "a target water content of 8.75-9.0% and a minimum water content of 8.0 %," and the Clear formulas requiring "a target water content of 8.0-8.8% and a minimum water content of 7.6% for some variants and higher for others." (*Id.* at ex. 5A at ¶ 42; see also ¶¶ 51, 64, 77, 90 (water content specifications for blue products require minimum water content to be 8.0%); ¶¶ 103, 116, 129 (water content specifications for Clear products require minimum water content to be 7.6% or greater)) Plaintiffs' expert, Dr. Kong, when asked to assume that Sun's construction was correct, agreed that the product is "outside the patent" and not infringing. (*Id.* at ex. 16 at 165:13-166:7)

¹⁵As there is no direct infringement of claim 1 of the '319 patent under the court's claim construction, and claims 3, 6, and 7 are dependent on claim 1, such claims are not infringed as well. Additionally, as indirect infringement is predicated on a finding of direct infringement, summary judgment under 271(b) is granted as well.

103. (Civ. No. 12-650, D.I. 159; Civ. No. 12-651, D.I. 170)¹⁶ The court considers each in turn.

1. Anticipation

a. Standard

Under 35 U.S.C. § 102(b), “[a] person shall be entitled to a patent unless the invention was patented or described in a printed publication in this or a foreign country . . . more than one year prior to the date of the application for patent in the United States.” The Federal Circuit has stated that “[t]here must be no difference between the claimed invention and the referenced disclosure, as viewed by a person of ordinary skill in the field of the invention.” *Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991). In determining whether a patented invention is explicitly anticipated, the claims are read in the context of the patent specification in which they arise and in which the invention is described. *Glaverbel Societe Anonyme v. Northlake Mktg. & Supply, Inc.*, 45 F.3d 1550, 1554 (Fed. Cir. 1995). The prosecution history and the prior art may be consulted if needed to impart clarity or to avoid ambiguity in ascertaining whether the invention is novel or was previously known in the art. *Id.* The prior art need not be ipsissimis verbis (i.e., use identical words as those recited in the claims) to be anticipating. *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716 (Fed. Cir. 1984).

An anticipation inquiry involves two steps. First, the court must construe the

¹⁶Sun additionally moves for summary judgment that the claims are invalid as indefinite should the court adopt plaintiffs’ proposed constructions for certain limitations. (Civ. No. 12-651, D.I. 170) As the court has not adopted such constructions, Sun’s motion for summary judgment is denied in this regard.

claims of the patent in suit as a matter of law. *Key Pharms. v. Hercon Labs Corp.*, 161 F.3d 709, 714 (Fed. Cir. 1998). Second, the finder of fact must compare the construed claims against the prior art. *Id.* A finding of anticipation will invalidate the patent. *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 147 F.3d 1374, 1378 (Fed. Cir. 1998).

b. Analysis

Henkel asserts that the following thirteen¹⁷ prior art references anticipate claim 1: (1) Freifeld; (2) U.S. Patent No. 3,528,925 (“Chapuis”); (3) U.S. Patent No. 4,608,187 (“Chang”); (4) U.S. Patent No. 4,610,799 (“Wilsberg”); (5) U.S. Patent No. 4,743,394 (“Kaufmann '394”); (6) U.S. Patent No. 4,929,380 (“Schulz '380”); (7) U.S. Patent No. 5,008,031 (“Schulz '031”); (8) U.S. Patent No. 5,362,413 (“Kaufmann '413”); (9) published European Patent Specification EP 0339707 (“Appel”); (10) published Japanese Patent Application JP 6-340899 (“Fujii”); (11) PCT Publication No. W0/1994/014941 (“Bertilsson”); (12) *Emballage Digest*; and (13) *Packaging Week*, July 1, 1993 (“Packaging Week”). (Civ. No. 12-650, D.I. 160 at 11-12) Sun similarly asserts that the Bertilsson, Fujii, Packaging Week, Chapuis, and Schulz '380 references anticipate the claimed invention. (Civ. No. 12-651, D.I. 189 at 2)¹⁸ Plaintiffs disagree that the references disclose each limitation of the claimed invention. (See Civ. No. 12-650, D.I. 196; Civ. No. 12-651, D.I. 189) The court considers each limitation of claim 1

¹⁷The court notes that the Henkel defendants will not be permitted to move forward on thirteen anticipatory references at trial. What constitutes a reasonable number of references will be discussed at the pre-trial conference.

¹⁸Sun additionally argues that Appel, Chang, Kaufmann '394, Kaufmann '413, Wilsberg, and Schulz '031 anticipate the '319 patent, attaching claim charts as exhibits. (See Civ. No. 12-651, D.I. 171 at 25 n.18) The court strikes this footnote and argument in its entirety.

in turn.^{19,20,21}

i. Liquid cleaning concentrate

The court has construed this limitation as “[a] composition that, when diluted, is suitable for removing dirt or impurities, and which is in a state of matter between a solid and a gas, and which has a definite volume but no definite shape. The composition may include a suspension of insoluble particles.” With respect to Freifeld (Civ. No. 12-650, D.I. 200, ex. S), Dr. Kong, plaintiffs’ expert, opines that “Freifeld’s enabling disclosure is limited to solids,” and although “Freifeld discloses a ‘detergent’ in column 6, lines 7-15, . . . that ‘detergent’ is a solid because most of the raw materials are solids.” (Civ. No. 12-650, D.I. 199, ex. B at 15) He further discusses examples disclosed in Freifeld, “all of which are solids, not ‘liquids’ under either parties’

¹⁹The Henkel defendants moved to exclude Dr. Kong’s expert report as it related to anticipation on the ground that he bases his opinion on incorrect “teaching away” and “surprising results” legal standards appropriate only in a non-obviousness analysis. (Civ. No. 12-650, D.I. 162 at 4) The court concludes, however, that Dr. Kong applies a proper anticipation analysis with respect to each of the asserted references. The Henkel defendants’ motion to exclude is denied in this regard. (D.I. 161)

²⁰Additionally defendants rely heavily on alleged admissions made by inventor Dr. Ruck during his deposition regarding Packaging Week, Bertilsson, and Schulz ‘380. (Civ. No. 12-650, D.I. 160 at 25; see, e.g., Civ. No. 12-651, D.I. 171 at 9-11) Plaintiffs respond that defendants “seriously distort[]” Dr. Ruck’s testimony and that he did not have an adequate opportunity to properly review the references. (Civ. No. 12-650, D.I. 196 at 23; Civ. No. 12-651, D.I. 189 at 15) The court concludes that, unless Dr. Ruck was previously given the references, along with the parties’ claim constructions, and given ample time to review each reference, Dr. Ruck’s testimony is fodder for cross examination but not sufficient to compel judgment.

²¹The court has neither the energy nor the resources to address each reference with respect to each limitation. Once it has identified an issue of fact with respect to a certain reference, it does not further consider that reference. This does not limit the parties from arguing any limitations at trial.

construction.” (*Id.* at 16) As to Kaufman ‘413 (Civ. No. 12-650, D.I. 200, ex. T), Dr. Kong opines that it discloses “a detergent composition that is [a] mull consisting of particulate solids that is referred to as a mull,” but it does not meet the claimed limitation under either parties’ construction “because the ‘mull’ describ[ed] in [Kaufman ‘413] is more akin to a paste or a solid than a liquid.” (Civ. No. 12-650, D.I. 199, ex. B at 33-34) While the Henkel defendants’ expert disagrees with this opinion, the court is not in a position to determine which expert correctly characterizes the reference.

In response to the Henkel defendants’ arguments that Chang (D.I. 200, ex. U) discloses this limitation, Dr. Kong opines that Chang “provides no explanation of how to make a detergent composition contained within this film” and, therefore, “fails to provide any enabling disclosure of any detergent that is suitable for use with his ‘polyvinyl alcohol compositions.’” (Civ. No. 12-650, D.I. 199, ex. B at 21-22) In response, the Henkel defendants aver that Dr. Kong has not offered an explanation of “why a [person of ordinary skill] would need to engage in undue experimentation to practice the substantially water-free liquid detergents of Chang. . . .” (D.I. 215 at 3) On the record at bar, the court will not engage in an “attempt to interpret confusing or general testimony to determine whether a case of invalidity has been made out, particularly at the summary judgment stage.”²² *Schumer v. Laboratory Computer Systems, Inc.*, 308

²²With respect to Emballage Digest (Civ. No. 12-650, D.I. 201, ex. AA) and Packaging Week (*id.* at ex. BB), plaintiffs allege that the two are not anticipatory because they do not enable anything. Specifically “Emballage Digest provides no formulations or any enabling disclosure of any detergent compositions” (D.I. 199, ex. B at 44), and “[t]he Packaging Week article provides no disclosure of any liquid cleaning concentrates or formulas.” (*Id.* at 46) See, e.g., *Helifix Ltd. v. Blok-Lok, Ltd.*, 208 F.3d 1339, 1346 (Fed. Cir. 2000) (“To be anticipating, a prior art reference must disclose ‘each and every limitation of the claimed invention[,] ... must be enabling[,] and [must]

F.3d 1304, 1316 (2002).

In opining that the present limitation is not met, Dr. Kong likens the compositions disclosed in the following references to pastes. Specifically, he opines that Wilsberg (Civ. No. 12-650, D.I. 200, ex. V) “discloses ‘thickly liquid to pasty mixtures,’ . . . and “describes his example 1 as a ‘paste.’” (Civ. No. 12-650, D.I. 199, ex. B at 77; see D.I. 200, ex. V at abstract, 2:15-21, 3:64-65, 5:24-51) The ‘319 patent explains that “liquid cleaning compositions possess advantages over pastes and gels” (‘319 patent, 1:52-53) and, therefore, supports Dr. Kong’s opinion that “[t]he ‘319 patent clearly distinguishes ‘liquid cleaning compositions’ from ‘pastes.’” (Civ. No. 12-650, D.I. 199, ex. B at 23)²³ Additionally, Dr. Kong explains that, “[a]lthough Schulz [‘031] refers to ‘liquids,’ the specification examples are pastes, not liquids. The [e]xamples described in column 5 have methylcellulose, which is a solid that is **not** water soluble Hence, this formula is a paste or substance with solid particles that is not the claimed liquid cleaning concentrate.” (Civ. No. 12-650, D.I. 199, ex. B at 32; Civ. No. 12-650, D.I. 200, ex. Y)²⁴ As to Kaufmann ‘394, Dr. Kong opines that “Kaufman ‘394 discloses a

describe ... [the] claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention.”).

²³Additionally, in their Petition for Withdrawal from Issue during prosecution of the ‘319 patent, applicants distinguished the prior art by stating that “the allegedly anticipating composition of the Haq patent is not a slurry as alleged, but rather is a paste, and accordingly, is not a **liquid** cleaning concentrate anticipating the instant invention.” (Civ. No. 12-650, D.I. 112 at JA98-99; Civ. No. 12-651, D.I. 135 at JA98-99) (emphasis in original)

²⁴Dr. Kong further opines that Schulz ‘031 “does not disclose having a ‘single layer film’” because it discloses “‘film bags based on polyvinyl alcohol’ and does not disclose that the ‘film bag’ is a ‘single layer.’” (Civ. No. 12-650, D.I. 199, ex. 13 at 33)

'detergent paste composition' and 'detergent pastes' not a 'liquid cleaning concentrate.'" (Civ. No. 12-650, D.I. 199, ex. B at 25)

ii. Water content

Plaintiffs dispute the presence of the water content imitation in the following references: (1) Fujii discloses a "liquid cleaning agent composition . . . [with] a water content in the range of 5 wt. % to less than 25 wt. %, more preferably 12 to 22 wt. %" (Civ. No. 12-650, D.I. 201, ex. CC at ¶ 11; Civ. No. 12-650, D.I. 199, ex. B at 37); (2) Bertilsson discloses a broad water content range of 2% to 18%, with a preferred range of 3% to 15%, with examples of 8.3% water and 16.7% water content (Civ. No. 12-650, D.I. 201, ex. DD at 2:11-12; 6:18-19; 7:1-12; 8:1-30; Civ. No. 12-650, D.I. 199, ex. B at 40-41); and (3) Schulz '380 discloses a "detergent contain[ing] at most 5% by weight unbound water" and "may also contain . . . water which is a raw material in the preparation of the detergent" ²⁵ (Civ. No. 12-650, D.I. 200, ex. Y at 2:17-25)

In support of their position, plaintiffs allege that the Federal Circuit's opinion in *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991 (Fed. Cir. 2006), is controlling. (Civ. No. 12-650, D.I. 196 at 15; Civ. No. 12-651, D.I. 189 at 12) In *Atofina*, the patent

²⁵The experts dispute whether Schulz '380 discloses the claimed water percentage ranges. Dr. Kong opined that it "does not disclose the claimed range because it only discloses the free water added and says additional water can be added by other ingredients and does not describe how much water is added . . . therefore provid[ing] no upper limit on the amount of water in his disclosed range." (Civ. No. 12-650, D.I. 199, ex. B at 28) Additionally, "Schulz ['380] discloses two examples each of which have more than 7.5 wt % water." (*Id.*) Dr. Cairns, the Henkel defendants' expert, argued that "one skilled in the art reading Schulz '380 would understand it as disclosing detergents with a range of total water content: from near zero wt. % (when using substantially anhydrous raw materials and no added water) to approximately 5 wt. % (when using substantially anhydrous raw materials and 5% added water)." (Civ. No. 12-650, D.I. 163, ex. C at ¶ 42)

claimed a temperature range of 330 to 450 degrees Celsius. 441 F.3d at 993. The prior art reference disclosed a temperature range of 100 to 500 degrees Celsius. *Id.* at 994. Although the claimed limitation was “entirely within” the prior art range, the Court concluded that, “[g]iven the considerable difference between the claimed range and the range in the prior art, no reasonable fact finder could conclude that the prior art describes the claimed range with sufficient specificity to anticipate this limitation of the claim.” *Id.* at 999. The prior art reference further disclosed “a preferred temperature range of 150 to 350 [degrees Celsius] that slightly overlap[ped] the [claimed] temperature range.” *Id.* at 1000. In finding that the prior art did not disclose a specific embodiment in the claimed range, the Court determined that,

[the] “slightly overlapping range is not disclosed as such, i.e., as a species of the claimed generic range of 330 to 450 °C. Moreover, the disclosure of a range of 150 to 350 °C does not constitute a specific disclosure of the endpoints of that range, i.e., 150 °C and 350 °C The disclosure is only that of a range, not a specific temperature in that range, and the disclosure of a range is no more a disclosure of the endpoints of the range than it is of each of the intermediate points.

Id. at 1000.

Defendants contend that the Federal Circuit’s opinion in *ClearValue, Inc. v. Pearl River Polymers, Inc.*, 668 F.3d 1340 (Fed. Cir. 2012), more appropriately governs the facts of the present case. (Civ. No. 12-650, D.I. 215 at 6, 13; Civ. No. 12-651, D.I. 171 at 8-9) The Court in *ClearValue* explained that an overlapping range may be sufficient to anticipate a claim where the range is not “critical” to the invention. *Id.* at 1345. The Federal Circuit further explained that in *Atofina*, “the evidence showed that one of

ordinary skill would have expected the synthesis process to operate differently outside the claimed temperature range, which the patentee described as ‘critical’ to enable the process to operate effectively.” *Id.* The Court in *ClearValue* distinguished the facts before it from those in *Atofina*, explaining that, “unlike *Atofina* where there was a broad genus and evidence that different portions of the broad range would work differently, here, there is no allegation of criticality or any evidence demonstrating any difference across the range.” *Id.* Additionally, “there is no ‘considerable difference between the claimed range and the range in the prior art.’” *Id.* Under this analysis, the claim limitation “alkalinity less than or equal to 50 ppm” was anticipated by prior art disclosing alkalinity of 150 ppm or less. *Id.*

Defendants urge the court to find similarly in the present case, arguing that plaintiffs have no actual evidence demonstrating the criticality of the claimed ranges. For support, the Henkel defendants point to the examples of the patent where only one example (and the only example of a laundry detergent) discloses water. (‘319 patent, 5:5-9:2) The Henkel defendants argue that, as this example discloses water at 2.0 wt. % (*id.* at 5:5-26), and no examples disclose water at or around 7.5 or 5.0 wt. %, it establishes the lack of criticality of the claimed ranges. (Civ. No. 12-650, D.I. 215 at 5) Sun directs the court to the prosecution history, where the original application focused on “less than 10 wt. % water,” to demonstrate the lack of criticality. (See Civ. No. 12-651, D.I. 171 at 8-9) Additionally, unasserted claim 35 claims water above the 7.5 wt. % limit. (‘319 patent, 11:28-31)

The court, however, declines to conclude that the water content is not “critical” to

the patent in light of evidence to the contrary. For instance, the prosecution history indicates that the claimed invention was rejected as obvious over U.S. Patent. No. 4,973,416 to Kennedy (“Kennedy”). (Civ. No. 12-650, D.I. 200, ex. D at 75) In response, applicant argued that Kennedy taught away from a cleaning concentrate having less than 10 wt. % water. (*Id.*) Kennedy explained that “[r]eduction in the water content to below about 10% is possible; **however, at a level of less than about 10% the liquid laundry detergent will absorb moisture through the vapor-permeable water-soluble film.**” (*Id.* (emphasis in original); ex. L at 2:55-59 (Kennedy patent)) In explaining that “it is preferred to limit the amount of water in the liquid cleaning concentrate to less than 10 wt. % of the composition,” the ‘319 patent distinguishes Kennedy. (See ‘319 patent, 3:42-49) Specifically, it states that, “[c]ontrary to the teachings of [Kennedy] . . . the liquid cleaning concentrate packets according to the invention are stable despite containing cleaning concentrates having less than 10 wt. % water.” (*Id.*) Additionally, Dr. Kong has explained that it was previously thought “that a high water content would result in leaking and a low water content would cause embrittlement of water soluble films such as PVOH films.” (Civ. No. 12-650, D.I. 199 at 13) He further explained that “[t]he ‘319 [p]atent inventors found that this range of water content was important because above 7.5% there could be too much water causing instability or leaking with liquid cleaning concentrates.” (*Id.*)

iii. A single layer film

Plaintiffs argue that several of the prior art references do not disclose a “film” at all, much less a single layer film. (Civ. No. 12-650, D.I. 196 at 19) Dr. Kong opines that

Bertilsson (D.I. 201, ex. DD at 5), Chapuis (D.I. 200, ex. X at 1:16-17), and Appel (*Id.* at ex. W at 3:44-46) disclose gelatin capsules, which would not be understood to disclose a “film” by a person of ordinary skill in the art. (Civ. No. 12-650, D.I. 199, ex. B at 20, 35, 41)²⁶ He additionally opines that, “[t]here is no discussion of the ribbon construction and whether it is a single layer or a multiple layer ribbon” in Chapuis. (*Id.* at 20) “There is no basis to conclude that Appel was disclosing single-layer films” as “[t]here is no disclosure of the ‘ribbon’ construction and how many layers they have and it cannot be assumed that they are a single layer.” (*Id.* at 35-36) “Further, there is nothing to indicate, and Dr. Cairns has not shown, that the ‘capsule’ is comprised of a ‘single layer’ as required by the asserted claims.” (*Id.* at 41) For each of the three limitations discussed above, defendants’ experts disagree with Dr. Kong’s characterization of the prior art and interpretations thereof. Such expert disagreements present genuine issues of material fact and defendants’ motions for summary judgment of invalidity, therefore, are denied. See *Hilgraeve Corp. v. McAfee Associates, Inc.*, 224 F.3d 1349, 1352 (Fed. Cir. 2000) (“While disagreements do not always create genuine issues of material fact, on this record the conflicting allegations of experts leaves material factual questions unanswered.”).²⁷

2. Public Use

²⁶The court acknowledges that Sun asserts that Dr. Kong should be disqualified from assessing whether a capsule is made from a single layer film. (See Civ. No. 12-651, D.I. 171 at 11, 24 n.17) Should Sun wish to assert this reference, this issue can be addressed at pre-trial or trial.

²⁷As the court has found genuine issues of material fact with respect to anticipation of the independent claim, the court does not address the asserted dependent claims of the ‘319 patent.

Defendants further argue that “the Asserted Claims are also invalid in view of Mr. Dickler and his company Dickler Chemical's public uses of product samples embodying the claimed inventions more than one year before the '319 Patent's April 1, 1997 filing date.” (Civ. No. 12-650, D.I. 160 at 26; see *also* Civ. No. 12-651, D.I. 171 at 28)

a. Standard

“A person shall be entitled to a patent unless . . . (b) the invention was . . . in public use . . . in this country, more than one year prior to the date of application for patent in the United States.” 35 U.S.C. § 102(b). “Public use under 35 U.S.C. § 102(b) includes any use of the claimed invention by a person other than the inventor who is under no limitation, restriction or obligation of secrecy to the inventor.” *Minnesota Min. & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1301 (Fed. Cir. 2002) (internal citations omitted). “Whether a patent is invalid due to a § 102(b) public use is a question of law based on underlying questions of fact.” *Id.* “A bar under § 102(b) arises where, before the critical date, the invention is in public use and ready for patenting.” *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 424 F.3d 1374, 1379 (Fed. Cir. 2005).

The proper test for the public use prong of the § 102(b) statutory bar is whether the purported use: (1) was accessible to the public; or (2) was commercially exploited. Commercial exploitation is a clear indication of public use, but it likely requires more than, for example, a secret offer for sale. Thus, the test for the public use prong includes the consideration of evidence relevant to experimentation, as well as, *inter alia*, the nature of the activity that occurred in public; public access to the use; confidentiality obligations imposed on members of the public who observed the use; and commercial exploitation.

Id. at 1380 (citations omitted) With respect to the “ready for patenting”

requirement,”[t]hat condition may be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.” *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55, 67-68 (1998). Although the Supreme Court applied *Pfaff*’s “ready for patenting” test in the context of the 102(b) on sale bar, the test applies equally to the public use bar as well. *Invitrogen*, 424 F.3d at 1379.

b. Analysis

Mr. Cicini²⁸ testified that by early 1995, “water-soluble pouch prototypes with liquid concentrates in them” had been made and were being shown to customers without a Non-Disclosure Agreement in place. (Civ. No. 12-650, D.I. 166, ex. 19 at 268:4-272:16; D.I. 172, ex. 19 at 268:4-272:16) He further testified that the film used was a two-mil-thick single layer film and the concentrate was the low water or the anhydrous formulas. (Civ. No. 12-650, D.I. 166, ex. 19 at 271:17-24; Civ. No. 12-651, D.I. 172, ex. 19 at 271:17-24) Mr. Dickler, inventor of the '319 patent, also testified that as of November 1995, they had made their own prototypes at Dickler Chemical. (Civ. No. 12-650, D.I. 166, ex. 15 at 57:19-58:6; Civ. No. 12-651, D.I. 172, ex. 20 at 57:19-58:6) Additionally, he agreed that the samples being demonstrated were the lower water content formulas that would ultimately wind up in the patent. (Civ. No. 12-650,

²⁸Plaintiffs identify Mr. Cicini as a lab technician employed by Dickler Chemical “involved in taking direction from Dr. Ruck and Mr. Dickler to prepare samples [and to conduct tests] based on the instructions provided to them.” (Civ. No. 12-651, D.I. 172, ex. 30 at 4) Plaintiffs assert that the jury would have ample reason not to believe Mr. Cicini’s testimony as he later left Dickler Chemical and began a company to market competing products. (See Civ. No. 12-651, D.I. 190, ex. S at ¶ 30)

D.I. 166, ex. 15 at 179:23-180:5) Mr. Dickler testified that the purpose of showing the product to customers in November 1995 was to “see what the acceptance would be so we would know how to formulate price and quantities and size and really to see what was marketable and what wasn’t.” (Civ. No. 12-650, D.I. 166, ex. 15 at 60:17-24; Civ. No. 12-651, D.I. 172, ex. 20 at 60:17-24)

Mr. Cicini further testified that he shipped “Revised Anhydrous Dishwashing Detergent” to Greensol in France for commercial scale packaging into water-soluble film on August 16, 1995. (See Civ. No. 12-650, D.I. 166, ex 19 at 203:1-205:5, Cicini-2 at 4, Cicini-5; Civ. No. 12-651, D.I. 172, exs. 28-30) Greensol allegedly shipped a boxful of the sample product back to Dickler Chemical which was stored in a lab and additional stability work was conducted on it. (See Civ. No. 12-650, D.I. 166, ex. 19 at 326:22-328:11; Civ. No. 12-651, D.I. 172, ex. 19 at 326:22-328:11)

In contending that there are issues of fact as to whether the product shown to customers embodied the claimed invention, plaintiffs point to Mr. Cicini’s deposition testimony where he states that he does not know which formulations were used in any particular prototype constructed and shown to customers before April 1, 1996. (See Civ. No. 12-650, D.I. 200, ex. B at 186:2-187:11; Civ. No. 12-651, ex. R. 186:2-187:11) Mr. Cicini further testified that, after receiving the product back from Greensol, “[w]e did some further stability work with it . . . I could see from here that we changed the product afterward, but we did some work with it.” (D.I. Civ. No. 12-650, D.I. 166, ex. 19 at 328:6-11; Civ. No. 12-651, D.I. 172, ex. 19 at 328:6-11) Additionally, he testified that “it was early ‘96 when we had formulas that we could have gone to market with.” (Civ. No. 12-650, D.I. 200, ex. B at 221:4-8; see also *id.* at ex. C at 5 (final formula dated

02/07/96); Civ. No. 12-651, D.I. 190, ex. R at 221:4-8)

Plaintiffs further contend that “[t]he demonstrations involved several measures designed to preserve the confidential and proprietary nature of the inventors’ ongoing experimentation,” and that “[t]he inventors and their staff demonstrated prototypes only for select individuals by invitation.” (Civ. No. 12-650, D.I. 196 at 27; see D.I. 201, ex. JJ at ¶ 28; Civ. No. 12-651, D.I. 189 at 27; see D.I. 190, ex. S at ¶ 28) Additionally, Mr. Cicini testified that the remains of the prototypes were discarded and no attendees were given samples to take away with them. (Civ. No. 12-650, D.I. 200, ex. B at 329:3-10; Civ. No. 12-651, D.I. 190, ex. R at 329:3-10)

The court concludes, based on the above record, that there exist issues of fact and credibility as to whether the samples were publicly demonstrated and whether they embodied the claimed invention. Defendants’ motions for summary judgment are denied in this regard. (Civ. No. 12-650, D.I. 159; Civ. No. 12-651, D.I. 170)

3. Obviousness

a. Standard

“A patent may not be obtained . . . 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). Obviousness is a question of law, which depends on underlying factual inquiries.

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the

obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

“[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. Likewise, a defendant asserting obviousness in view of a combination of references has the burden to show that a person of ordinary skill in the relevant field had a reason to combine the elements in the manner claimed. *Id.* at 418-19. The Supreme Court has emphasized the need for courts to value “common sense” over “rigid preventative rules” in determining whether a motivation to combine existed. *Id.* at 419-20. “[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 420. In addition to showing that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, a defendant must also demonstrate that “such a person would have had a reasonable expectation of success in doing so.”

PharmaStem Therapeutics, Inc. v. ViaCell, Inc., 491 F.3d 1342, 1360 (Fed. Cir. 2007).

A combination of prior art elements may have been “obvious to try” where there existed “a design need or market pressure to solve a problem and there [were] a finite number of identified, predictable solutions” to it, and the pursuit of the “known options

within [a person of ordinary skill in the art's] technical grasp" leads to the anticipated success. *Id.* at 421. In this circumstance, "the fact that a combination was obvious to try might show that it was obvious under § 103." *Id.* Federal Circuit precedent has also established that "[s]tructural relationships may provide the requisite motivation or suggestion to modify known compounds to obtain new compounds," and that particular types of structural similarity can give rise to a case of prima facie obviousness.

Genetics Institute, LLC v. Novartis Vaccines and Diagnostics, Inc., 655 F.3d 1291, 1312 (Fed. Cir. 2011) (citing *In re Deuel*, 51 F.3d 1552, 1558 (Fed. Cir. 1995)).

A court is required to consider secondary considerations, or objective indicia of nonobviousness, before reaching an obviousness determination, as a "check against hindsight bias." See *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063 (Fed. Cir. 2012). "Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966).

"Because patents are presumed to be valid, see 35 U.S.C. § 282, an alleged infringer seeking to invalidate a patent on obviousness grounds must establish its obviousness by facts supported by clear and convincing evidence." *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006) (citation omitted). In conjunction with this burden, the Federal Circuit has explained that,

[w]hen no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the

added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.

PowerOasis, Inc. v. T-Mobile USA, Inc., 522 F.3d 1299, 1304 (Fed. Cir. 2008) (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons*, 725 F.2d 1350, 1359 (Fed. Cir. 1984)).

b. Analysis

Defendants alternatively argue that, if not anticipatory, certain combinations of the above references render the asserted claims obvious. Dr. Cairns, the Henkel defendants' expert, summarizes the teachings of the prior art references (Civ. No. 12-650, D.I. 163, ex. A at ¶¶ 123-130) and concludes that "all elements of the [a]sserted [c]laims of the '319 [p]atent were in the public domain and known to and regularly practiced by skilled artisans." (*Id.* at ¶ 130) Moreover, "any differences that might exist between the claimed subject matter and the prior art would be obvious to a person of ordinary skill in the art, and that such differences involve merely common sense and routine improvement." (*Id.* at ¶ 132)²⁹

The court concluded above that there are disputes of fact regarding whether certain prior art references disclose each of the three limitations of claim 1 of the '319 patent. Plaintiffs point out that the Kennedy patent discussed in the '319 patent taught away from the inventors' approach. (Civ. No. 12-650, D.I. 196 at 32, 36) Dr. Kong

²⁹Sun relies on attorney argument to contend that the asserted claims are invalid as obvious. Attorney argument, without more, is insufficient to meet Sun's burden of persuasion on summary judgment.

explains that “at the time of the invention [the focus was] on multi-layer films and film coatings, as opposed to single-layer films, because these multi-layer films had increased durability/strength and/or improve the chemical compatibility between the composition, the environment and the film.” (Civ. No. 12-650, D.I. 199, ex. B at 61-62) He further explains that “[o]ne of ordinary skill in the art would not have been motivated at the time of the invention to package a liquid cleaning concentrate in a water-soluble film It was known that a liquid cleaning concentrate would interact with a water-soluble film and affect the packaging stability or brittleness and the liquid properties.” (*Id.* at 61-64)

Additionally, the parties’ experts point to conflicting teachings regarding the water content for use in water-soluble films. Dr. Kong opines that “one of ordinary skill in the art would not have been motivated at the time of the invention to package a liquid cleaning concentrate in a water soluble film” as the Kennedy prior art cited within the ‘319 patent explains that, “at a level of less than about 10% the liquid laundry detergent will tend to absorb moisture through the vapor-permeable water-soluble film. This absorption of water can destabilize the liquid laundry detergent and/or lead to a breakdown in the water-soluble film.” (*Id.* at 63; Civ. No. 12-650, D.I. 200, ex. L at 2:57-61) Dr. Cairns explains that the Fujii prior art reference “recognizes that ‘when an aqueous solution with a water content exceeding 10 wt. % is packaged inside a water-soluble film, the film dissolves’ thereby teaching that water content below 10 wt. %, such as less than 5 wt. % is desirable.” (Civ. No. 12-650, D.I. 163, ex. C at ¶ 164) There remain genuine issues of material fact with respect to the obviousness determination. Defendants’ motions are denied.

V. MOTION TO EXCLUDE

Rule 702 of the Federal Rules of Civil Procedure allows a qualified witness to testify in the form of an opinion if the witness' "scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue" and if his/her testimony is the product of reliable principles and methods which have been reliably applied to the facts of the case.

The Henkel defendants filed a *Daubert* motion (discussed throughout above) additionally seeking to exclude any opinions from Dr. Kong and/or Dr. Gering concerning secondary considerations as speculative and based on incomplete data. With respect to such opinions, the Henkel defendants allege that: (1) Dr. Kong is not qualified³⁰ to testify on commercial success, industry praise, licensing, and copying; (2) Dr. Gering bases his commercial success testimony on incomplete data; and (3) the required nexus between the secondary considerations and the '319 patent is lacking. (Civ. No. 12-650, D.I. 162 at 13-20) In response, plaintiffs contend that Dr. Kong's extensive experience in detergent production qualifies him to testify on these secondary considerations, and that any disputes of required nexus or the experts' ultimate conclusions bear on the weight of the evidence, not admissibility. (Civ. No. 12-650, D.I. 194 at 13-20)

A. Commercial success

In order to demonstrate commercial success in the context of secondary

³⁰Dr. Kong is allowed to offer opinions on these secondary considerations of non-obviousness, but his opinions still need to show the requisite nexus to be admissible. See *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392-93 (Fed. Cir. 1988).

considerations of non-obviousness, an expert must establish a nexus between that commercial success and the patented technology. *LadaTech, LLC v. Illumina, Inc.*, Civ. No. 09–627, 2012 WL 2153646, at *1 (D. Del. Jan. 24, 2012); see *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004); see also *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000) (“[I]f the marketed product embodies the claimed features, and is coextensive with them, then a nexus is presumed and the burden shifts to the party asserting obviousness to present evidence to rebut the presumed nexus.”).

In the present case, the Henkel defendants allege that plaintiffs’ expert, Dr. Kong, contradicts himself regarding whether the ‘319 patent has made plaintiffs’ products commercially successful. (See D.I. 166, ex. 2 at 57-58, ex. 9 at 345:18-23, 349:4-350:3) (Dr. Kong first says the commercial success is tied to the fact that the water content prevents the products from leaking but later says that less than 7.5% water is not necessary for commercially successful products). They further allege that Dr. Kong admits that the commercial success of the unit-dose laundry products was due to other industry players and that consumers do not care one way or another about the water content of the product. (*Id.* at ex. 9 at 320:11-321:11) With respect to Dr. Gering, the Henkel defendants contend that his opinions should be excluded because he only accounted for the commercial success of the product since 2012, after Procter and Gamble had launched its Tide Pods product, which does not account for product sales from 1995-2005. (D.I. 162 at 18-19) They further contend that Dr. Gering’s failure to consider the lack of commercial success of plaintiffs’ product compared to the

rest of the market renders his testimony inadmissible. (*Id.* at 19)

Dr. Kong's contradicting testimony, combined with the fact that the most successful unit dose laundry product, Proctor & Gamble's Tide product, has a water content much higher than 7.5%, illustrate that plaintiffs have not shown that there is a nexus between the commercial success of their products and the '319 patent's 7.5% water content limitation. (See D.I. 166, ex. 9 at 349:4-350:3) Proctor & Gamble's success greatly weakens plaintiffs' commercial success nexus argument because it illustrates that strong marketing campaigns and/or the general ease of use are what make the products commercially successful and not the water content in particular. (See D.I. 166, ex. 9 at 320:11-321:11) In other words, the products' success is not "coextensive" with the '319 patented technology. *Brown & Williamson*, 229 F.3d at 1130. Additionally, Dr. Gering's report shows that, even since 2006, plaintiffs' product has only averaged sales of approximately \$1 million annually out of a nearly \$7 billion dollar laundry detergent industry. (See D.I. 198 at 5, 7) Because no nexus has been demonstrated between the commercial success of the unit dose laundry products and the '319 patent's 7.5% water content limitation, the court excludes Dr. Kong's and Dr. Gering's testimony regarding commercial success. The Henkel defendants' motion is granted in this regard.

B. Industry praise

Similarly, an expert must establish a nexus between the industry praise and the patented technology. See *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1351 (Fed. Cir. 2012). The Henkel defendants allege

that Dr. Kong bases his nexus opinions on praise that the unit dose laundry product received generally, not on anything specific to the features of the '319 patent. They also point to Dr. Kong's deposition testimony where he states that the industry praise he cited in his expert report relates to the benefits of the unit dose format generally and not the '319 patent alone. (See D.I. 166, ex. 9 at 334:25-337:21, 343:23-345:15)

The articles that plaintiffs cite to support their claims of industry praise discuss the benefits of the products in general, such as their biodegradable nature and the fact that no measurement is needed, not the 7.5% water content in particular. (See D.I. 195, ex. H) Further, unlike the innovative dual-activity oil derrick patent which was **specifically** praised by other experts in *Transocean*, here the claimed invention was not specifically praised, the entire product in general was praised. See *Transocean*, 699 F.3d at 1351. Therefore, the expert testimony regarding industry praise is inadmissible because there is no nexus between the industry praise of the unit dose laundry products and the claimed invention. The Henkel defendants' motion is granted in this regard.

C. Licensing

In order to properly consider licensing in the context of secondary considerations of non-obviousness, an expert must establish a nexus between that licensing and the patented technology. See *Iron Grip Barbell*, 392 F.3d at 1324. "[T]he mere existence of . . . licenses is insufficient to overcome the conclusion of obviousness' when there is a strong prima facie case of obviousness." *Id.* (citing *SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp.*, 225 F.3d 1349, 1358 (Fed. Cir. 2000)). In short, details of the

licenses must be provided to perform a proper nexus analysis.

The Henkel defendants contend that Dr. Kong's opinion should be excluded because he did not provide a proper nexus analysis between the licenses and the claimed invention. They allege that Dr. Kong did not show proof that licenses were paid or provide any other license details³¹ and, therefore, he did not provide a proper licensing nexus analysis. (D.I. 162 at 15-16) In his report, Dr. Kong provides a list of licenses and cites to numerous exhibits regarding proof of licensing; only two of these exhibits were submitted to the court. (D.I. 199, ex. B at 49-50) Additionally, the exhibits that were submitted, which were related to licensing negotiations stemming from plaintiff B3P's parent company, Dickler Chemical, neglect to mention that Dickler made settlement payments to resolve the licensing dispute that plaintiffs cite. (See D.I. 195, ex. I) A proper licensing nexus analysis cannot be made without additional information concerning the licenses that Dr. Kong lists in his report. Therefore, the court excludes the expert testimony regarding licensing because there is no evidenced nexus between the claimed licensing of the unit dose laundry products and the claimed invention. The Henkel defendants' motion is granted in this regard.

D. Copying

Lastly, with respect to the secondary consideration of copying, "copying requires the replication of a specific product" which can be illustrated in a variety of different ways, including

³¹For example, with respect to the alleged Proctor and Gamble licensing that Dr. Kong cites in his report, he never discusses the nature of this license or the claim that this license was agreed in exchange for \$1. (See D.I. 166, ex. 9 at 334:1-20)

through internal documents, *see Akamai Techs., Inc. v. Cable & Wireless Internet Servs., Inc.*, 344 F.3d 1186, 1196–97 (Fed. Cir. 2003); direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a virtually identical replica, *see Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1285 (Fed. Cir. 2000); or access to, and substantial similarity to, the patented product (as opposed to the patent), *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1027 (Fed. Cir. 1985), *overruled on other grounds by, Midwest Indus., Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356, 1359 (Fed. Cir. 1999) (en banc).

Iron Grip Barbell Co., 392 F.3d at 1325. However, “[n]ot every competing product that arguably falls within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the non-[i]obviousness of the patent.” *Id.*

The Henkel defendants allege that the copying allegations are speculative because they do not account for the fact that they already had knowledge of the unit dose product from their German parent company and because no confidential information regarding the unit dose product was ever exchanged between plaintiffs and the Henkel defendants. (D.I. 162 at 16-17) Therefore, the Henkel defendants claim that Dr. Kong’s copying opinions should be excluded. (*Id.* at 17)

In his report, Dr. Kong cites to numerous exhibits regarding proof of copying, yet none of these exhibits were submitted to the court. (D.I. 199, ex. B at 50-54) Without these exhibits it is impossible to determine the validity of the copying claims. Therefore, the court excludes Dr. Kong’s testimony regarding copying because plaintiffs have not provided proof that the Henkel defendants copied the claimed invention in developing their own unit dose laundry products. The Henkel defendants’ motion is granted in this

regard.³²

VI. CONCLUSION

For the foregoing reasons, the court denies defendants' motions for summary judgement of invalidity (Civ. No. 12-650, D.I. 159; Civ. No. 12-651, D.I. 170), grants in part and denies in part the Henkel defendants' motion for summary judgment of non-infringement (Civ. No. 12-650, D.I. 168), and grants Sun's motion for summary judgment of non-infringement (Civ. No. 12-651, D.I. 166). The court grants in part and denies in part the Henkel defendants' motion to exclude the testimony and opinions by Drs. Di Vincenzo, Kong and Gering (Civ. No. 12-650, D.I. 161), grants Sun's motion to exclude Robertson Microlit's and Mibrobac's testing (Civ. No. 12-651, D.I. 167), and denies as moot the Henkel defendants' motion to strike the March 6 supplemental expert reports of Drs. Di Vincenzo and Kong (Civ. No. 12-650, D.I. 167).

³²To the extent that Sun addresses additional secondary considerations, Sun may identify such issues at the pre-trial conference.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

COT'N WASH, INC. and)
BIG 3 PACKAGING, LLC,)
)
Plaintiffs,)
)
v.) Civ. No. 12-650-SLR
)
HENKEL CORPORATION,)
THE DIAL CORPORATION, and)
HENKEL CONSUMER GOODS INC.)
)
Defendants.)

COT'N WASH, INC. and,)
BIG 3 PACKAGING, LLC,)
)
Plaintiffs,)
)
v.) Civ. No. 12-651-SLR
)
THE SUN PRODUCTS)
CORPORATION,)
)
Defendant.)

ORDER

At Wilmington this ^{7~~6~~}th day of August, 2014, consistent with the memorandum opinion issued this same date;

IT IS ORDERED that:

1. The Henkel defendants' motion for summary judgment of invalidity (Civ. No. 12-650, D.I. 159) is denied.
2. The Henkel defendants' motion to exclude the testimony and opinions by Drs. Di Vincenzo, Kong and Gering (Civ. No. 12-650, D.I. 161) is granted in part and denied

in part.

3. The Henkel defendants' motion to strike the March 6 supplemental expert reports of Drs. Di Vincenzo and Kong (Civ. No. 12-650, D.I. 167) is denied as moot.

4. The Henkel defendants' motion for summary judgment of non-infringement (Civ. No. 12-650, D.I. 168) is granted in part and denied in part.

5. Sun's motion for summary judgment of non-infringement (Civ. No. 12-651, D.I. 166) is granted.

6. Sun's motion to exclude Robertson Microlit's and Mibrobac's testing (Civ. No. 12-651, D.I. 167) is granted.

7. Sun's motion for summary judgment of invalidity (Civ. No. 12-651, D.I. 170) is denied.


United States District Judge