United States District Court,
S.D. California.

Armand MINGIONE, an individual,
Plaintiff.
v.
U.S. FOOD CORPORATION, a California Corporation; Robert Wilson, an individual; Jeff Shirkani, an individual; and Does 1 through X, inclusive,
Defendants.

No. 02-CV-1774-K (JMA)

Oct. 1, 2003.

Henry G. Kohlmann, The Boeing Company, Irvine, CA, for Plaintiff.

Matthew D. Murphey, Gordon and Rees, Dallas, TX, for Defendants.

ORDER RE: CLAIM CONSTRUCTION.

JUDITH N. KEEP**, District Judge.**

Presently before the court are briefs by plaintiff and defendants, presented for purposes of a *Markman* hearing. Specifically, plaintiff filed his claim construction brief on August 15, 2003, and subsequently, defendants filed their brief of claim construction issues on September 5, 2003. In response, plaintiff filed a reply brief on September 15, 2003. On Monday, September 22, 2003, the parties appeared before this court for oral arguments. As well, the court notes that one of the parties called the court on September 26, 2003, to notify the court of the Federal Circuit's decision in Festo Corp. v. Shoketsu, 2003 WL 22220526 (Fed.Cir. Sept. 26, 2003). Both parties are represented by counsel. The court has jurisdiction because plaintiff brings a patent infringement claim pursuant to 35 U.S.C. s. 27.

I. Background

The following is taken from the pleadings and is not to be construed as findings of fact by the court.

A. Background of Suit

Plaintiff states that by 1996, he was "manufacturing and selling" a powdered milk substitute to U.S. Food. *Complaint* H 14. According to plaintiff, the powdered milk substitute has "the taste and characteristics of milk but without lactose ingredients." *Id*. para. 14. The powdered milk substitute was marketed and sold as "Nutrimil." *Id*. Plaintiff alleges that in the fall of 1996, he "and U.S. Food entered into an oral agreement ("1996 oral agreement") wherein [plaintiff] agreed to" sell the powdered milk substitute *exclusively* to U.S. Food. *Id*. para. 15 (*italicizes* added). In return, U.S. Food agreed to "pay [plaintiff] $5,000.00 per month for the right to such *exclusive* use of the [p]owdered [m]ilk [s]ubstitute." *Id* (*italicizes* added). Plaintiff also

states that "as part of the oral agreement, [he] agreed to provide U.S. Food with technical consulting services with respect to the converting of the [p]owdered [m]ilk [s]ubstitute into a liquid drink mixture," dealing in particular with "issues as to the temperature of the water, and other concerns, during the mixing process." *Id*.

Plaintiff contends that the powdered milk substitute he agreed to sell exclusively to U.S. Food pursuant to the 1996 oral agreement "could not endure extended shelf life because the high temperature of heat pasteurization [caused] the powdered mix to separate from the water with which it was mixed." *Id*. para. 16. To remedy this problem, plaintiff alleges that he "devoted time, effort, and capital to the development of a more superior powdered milk substitute that would not separate and could endure extended shelf life." *Id*. para. 18. "In early 1997, [plaintiff] discovered that adding the stabilizing agent Recodan to his powdered milk substitute would, when the powdered milk substitute [was] mixed with water to form a liquid drink mixture, cause the liquid drink mixture to [endure] extended shelf life, without the powdered milk substitute separating from the water." *Id*. para. 19. After this discovery, plaintiff added Recodan to the powdered milk substitute he manufactured and exclusively sold to U.S. Food. *Id*. para. 20.

However, adding Recodan did not completely solve the problem of the powdered mix separating from water because "during heat pasteurization the Recodan would settle out of the solution and collect at the bottom of the container." *Id*. para. 22. Again, plaintiff alleges that he, on his own time and not during time he spent performing consulting services for U.S. Food, continued "devoting time, effort, and capital to the development of a more superior powdered milk substitute that would not separate even during heat pasteurization and thus could endure extended shelf life in liquid drink form." *Id* para. 23. On or about June 27, 1997, plaintiff discovered that adding Tetrasodium Pyrophosphate to the powdered milk substitute resulted "in a new powdered product that, when mixed with water to form a liquid drink mixture," withstood separation from water during pasteurization and therefore had extended shelf life in liquid drink form. *Id*. para. 24. "As of November 1997, "the powdered product that [plaintiff] was manufacturing and selling to U.S. Food contained Tetrasodium Pyrophosphate." *Id*. para. 26.

Plaintiff filed a patent application in the United States Patent & Trademark Office for his powdered milk substitute product containing Tetrasodium Pyrophosphate on June 25, 1998. *Id*. para. 27. During the patent process, plaintiff "advised [d]efendants of the status of the application regarding the [p]atent." *Id*. para. 32. On February 1, 2000, plaintiff was issued United States Patent No. 6,020,017 (the '017' patent) for "an invention consisting of a certain powdered "Non-dairy Drink Mixture" (the "[i]nvention"), which mixture, when combined with water, formed a unique 'heat resistant milk substitute' that is capable of withstanding the high temperature of heat pasteurization without separation of the drink mixture from the water with which it was mixed." Id. para. 29.

After issuance of the patent, plaintiff "provided [d]efendants with actual notice of the [pjatent, and of the fact of ... infringement by [d]efendants." Id. para. 32. Plaintiff alleges that "[d]efendants have infringed and are now infringing the claims of the [pjatent, by making, using[,] offering to sell, and/or selling a non-dairy drink mixture, still marketed under the name 'Nutrimil,' embodying the [i]nvention claimed in the [pjatent." Id. para. 31. On September 9, 2002, plaintiff filed the instant complaint against defendants. One of the claims in the complaint is that of patent infringement pursuant to 35 U.S.C. s. 271.

B. Background of Plaintiffs Patent No. 6,020,017

Plaintiff Mingione, representing himself pro se, initially filed an application for the '017' patent on June 25,

1998. *See defendants' Markman* brief at 10 & *defendants' Exhibit 1* at 1-22 (copy of U.S. utility patent application signed by Armand Mingione on June 25, 1998); *see also plaintiff's Markman brief,* Exhibit B. This initial application was rejected by the U.S. Patent Office on July 20, 1998. *See defendants' Markman brief* at 10 & *defendants' Exhibit 1* at 23-27 (copy of U.S. Patent Office's rejection dated July 20, 1998); *see also plaintiff's Markman brief,* Exhibit B. Subsequently, plaintiff Mingione, again acting pro se, filed a first amendment to the initial application in or about November 1998. *See defendants' Markman brief* at 10 & *defendants' Exhibit 1* at 28-57 (copy of patent application amendment by Armand Mingione); *see also plaintiff's Markman brief,* Exhibit B. The first amendment was rejected by the U.S. Patent Office in a decision dated on or about March 10, 1999. *See defendants' Markman brief* at 11 & *defendants' Exhibit 1* at 58-70 (copy of U.S. Patent Office's rejection dated March 10, 1999); *see also plaintiff's Markman brief,* Exhibit B. In the March 10, 1999 decision, the U.S. Patent Office noted that the rejection was a final one. *See defendants' Markman brief* at 11 & *defendants' Exhibit 1* at 69; *see also plaintiff's Markman brief,* Exhibit B.

In or about May 1999, subsequent to the final rejection of March 10, 1999, plaintiff filed an amendment to his patent application. *See defendants' Markman brief* at 11 & *defendants' Exhibit 1* at 71-86 (copy of plaintiff's amendment of patent application after final rejection); *see also plaintiff's Markman brief,* Exhibit B. In this amendment, plaintiff Mingione was represented by attorney Henry Kohlman. *See defendants' Exhibit 1* at 86 (copy of power of attorney signed by Armand Mingione); *see also plaintiff's Markman brief,* Exhibit B. In a notice dated June 2, 1999, the U.S. Patent Office notified plaintiff that the amendment after final rejection, filed by Attorney Kohlman on behalf of plaintiff Mingione, would not be filed and considered by the U.S. Patent Office unless the amendment was filed concomitantly with a Notice of Appeal and an Appeal Brief. *See defendants' Markman brief* at 12 & *defendants' Exhibit 1* at 88-89 (copy of U.S. Patent Office's Notice of Office Action dated June 2, 1999); *see also plaintiff's Markman brief,* Exhibit B. Consequently, plaintiff, through patent counsel Kohlman, filed a notice of appeal and an appeal brief on or about June 14, 1999. *See defendants' Markman brief* at 12 & *defendants' Exhibit 1* at 90-174 (copy of plaintiff's appeal to U .S. Patent Office); *see also plaintiff's Markman brief,* Exhibit B.

Thereafter, plaintiff was finally granted Patent Number 6,020,017 for his powered milk substitute in a patent dated February 1, 2000. Patent '017' summarizes its invention as the following:

The instant invention is a powdered milk substitute with the taste and processing characteristics of milk but without lactose. It may, as has been pointed out, be stored and shipped in either a dry or liquid form. Further when the ingredients are reconstituted into a liquid form the mixture may be processed like any milk product and subjected to the heat required for pasteurization without the suspended ingredients settling out, thereby permitting an extended shelf life of the reconstituted liquid. In addition, the liquid not require (sic) shaking to maintain the ingredients in suspension.

Plaintiff's Markman brief, Exhibit A (copy of patent '017').

II. Claim Construction

Claim construction is a question of law and hence is an issue to be adjudicated by the judge. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). In interpreting a claim, "the court should look first to the intrinsic evidence of record, *i.e.,* the patent itself, including the claims, the specification and, if in evidence, the prosecution history." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Specifically, the U.S. Court of Appeals of the Federal Circuit has stated that the court must first "look to the

words of the claims themselves, both asserted and unasserted, to define the scope of the patented invention." *Id*. (citation omitted). In looking at the words used in the claims, "[a] claim term should be given its ordinary meaning unless the specification or prosecution history provide a special, different meaning or definition." Kraft Foods, Inc. v. International Trading Co., 203 F.3d 1362, 1366 (Fed.Cir.2000). Secondly, the Federal Circuit directs courts to "review the specification to determine whether the inventor ... used any terms in a manner inconsistent with their ordinary meaning ... [because] [t]he specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." Vitrionics, supra, 90 F.3d at 1582 (citations omitted). Third, the Federal Circuit counsels courts to "consider the prosecution history of the patent, if in evidence ... [that consists of] the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims." *Id*. (citations omitted).

III. Discussion

Claims 1, 12, and 13 of the '017' patent set forth the following:

[Claim] 1.

A heat resistant milk substitute comprising a mixture of:

a. whey in the range of about 10% to about 45% by dry weight of said mixture;

b. a sweetner;

c. a catalyst to maintain ingredients in suspension after heat processing in the range of 0.5% to 3% by dry weight of said mixture comprising tetrasodium pyrophosphate; and

d. a stabilizer emulsifier.

[Claim] 12.

A heat resistant milk substitute comprising a mixture of:

a. a noin-dairy (sic) creamer;

b. a sweetner[;]

c. a stabilizer emulsifier[;] and

d. a catalyst to maintain ingredients in suspension after heat processing.

[Claim] 13.

A heat resistant milk substitute as described in claim 12 wherein said catalyst is Tetrasodium Pyrophosphate.

Plaintiff's Markman brief, Exhibit A (copy of patent '017').

At issue between the parties and before this court is the meaning of the term "catalyst" as used in claims 1, 12, and 13, and the meaning of the term "Tetrasodium Pyrophosphate" as used in claims 1 and 13. *See plaintiff's Markman brief* at 11; *defendants' Markman brief* at 5, 9.

A. Parties' Arguments

As best as this court can understand, FN1 plaintiff asks for the following construction of the term "catalyst": any substance, unspecified as to amount, which maintains ingredients in the milk substitute in suspension after heat processing, including a broad range of equivalents FN2 such as Tetrasodium Pyrophosphate, other buffered salts, other buffers, and other chemicals that perform this same function of maintaining suspension after heat processing in the same way with the same results. *See plaintiff's Markman brief* at 13; *plaintiff's Markman brief,* Exhibit H (setting forth proposed constructions for claims 1, 12, and 13). This construction is allegedly the broadest valid construction allowed by the '017' patent and specifically claim 12 of the '017' patent. As for the term "Tetrasodium Pyrophosphate," plaintiff asks the court to define it to include its other common names including sodium pyrophosphate, TSPP, pyro, tetrasodium diphosphate, diphospohoric acid, tetrasodium salt, and USDA number 7722-88-5. *See plaintiff's Markman brief* at 14, 16.

FN1. Before reading the parties' briefs, the court presupposed that the challenge in this *Markman* hearing would be posed by the technical nature of the patent at hand. However, after reading the parties' briefs and their supporting papers, the court notes that plaintiff's contentions were, and still are after oral arguments, somewhat confusing.

FN2. Both parties used the term 'equivalents' loosely. Generally, patent litigation entails a twostep approach, and the doctrine of equivalents is addressed at the second step rather than the first step, the step the parties are at in the instant case. The following explication by the Federal Circuit explains this two step process: Determining whether a patent claim has been infringed involves two steps: (1) claim construction to determine the scope of the claims, followed by (2) determination whether the properly construed claim encompasses the accused structure ... The first step, claim construction, is a matter of law which this court reviews de novo ... The second step, determination of infringement, whether literal or under the doctrine of equivalents, is a question of fact.

Bai v. L & L Wines, Inc., 160 F.3d 1350, 1353 (Fed.Cir.1998) (citations omitted).
On the other hand, defendants ask the court for a narrow construction of the term "catalyst." They ask the court to construe "catalyst" as Tetrasodium Pyrophosphate in an amount that is not less than 0.5 percent. *See defendants' Markman brief* at 17, As for the term "Tetrasodium Pyrophosphate," defendants ask that this term simply be defined as the chemical Tetrasodium Pyrophosphate and nothing else. *See id.*

B. Construction of the Term "Catalyst"

Claim 2 sets forth "[a] heat resistant milk substitute comprising a mixture of ... a sweetner[;] ... a stabilizer emulsifier[;] and ... a catalyst to maintain ingredients in suspension after heat processing." *Plaintiff's Markman brief,* Exhibit A (copy of patent "017")

According to plaintiff, the term "catalyst" as used in Claim 2 must be defined according to its ordinary and broad dictionary usage, "as any substance, (sic) which maintains ingredients in suspension after heat

processing." *Id.,* Exhibit H. Moreover, plaintiff states that "the definition of claim 12 which refers to a catalyst added to said mixture to maintain ingredients in suspension after heat processing[,] should be defined to include a broad range of its equivalents, namely any buffered salts, buffer or other chemical that performs that the (sic) same function in the same way with the same result, as set forth in the claim elements as "a catalyst to maintain ingredients in suspension after heat processing ." *Id*. at 13,

Contrary to plaintiff's proposed, broad construction, however, unambiguous language regarding the term "catalyst" used in the specification of the '017' patent indicates that the term "catalyst" should be interpreted narrowly to mean Tetrasodium Pyrophosphate. The Federal Circuit has stated that although "the description of the preferred embodiment in the specification does not limit the claims to that embodiment, when the preferred embodiment is described in the specification as the invention itself, the claims are not necessarily entitled to a scope broader than that embodiment." Modine Manu. Co. v. United States International Trade Commission, 75 F.3d 1545, 1551 (Fed.Cir.1996). The specification for the '017' patent specifically states the following; "For the stabilizer emulsion to maintain the ingredients in suspension after heating (sic) additional ingredient is added to act as a catalyst during heating. This additional ingredient is tetrasodium pyrophosphate a buffered salt." *Plaintiff's Markman brief,* Exhibit A (copy of patent '017'). Plaintiff argues that the term "catalyst" should not be limited to Tetrasodium Pyrophosphate because the specification simply sets forth the best mode of plaintiff's invention and does not describe the invention itself. *See plaintiff's reply brief* at 14. Here, however, where the specification with particularity states that the additional ingredient needed to act as a catalyst during heating is Tetrasodium Pyrophosphate, the court interprets the specification as describing the invention, rather than the best mode. In these two sentences, the specification states with unambiguity that the additional material needed to act as a catalyst is "Tetrasodium Pyrophosphate, a buffered salt." *Plaintiff's Markman brief,* Exhibit A (copy of patent '017'). If plaintiff wished to indicate with broadness that other chemicals might be acceptable in place of Tetrasodium Pyrophosphate, the specification could have stated, 'one such additional ingredient is tetrasodium pyrophosphate,' or 'this additional ingredient is a buffered salt such as tetrasodium pyrophosphate.' In fact, the specification utilizes such broader grammatical constructions when describing other parts of the milk substitute invention, such as when the specification states, "The instant invention is however, not limited to the use of non-dairy creamers but is drawn to the range of percentage (sic) of the various ingredients described herein." *Plaintiff's Markman brief,* Exhibit A (copy of patent '017'). In comparison, when describing the catalyst, the language of the specification is unequivocal that the catalyst is Tetrasodium Pyrophosphate.

In addition, the disclosed embodiments set forth in the specification also indicate that the term catalyst should be defined as Tetrasodium Pyrophosphate. In Kraft Foods, Inc. v. International Trading Co., supra, 203 F.3d 1362, 1368 (Fed.Cir.2000), the Federal Circuit noted that "[a]lthough the written description may aid in the proper construction of a claim term, limitations, examples, or embodiments appearing only there may not be read into the claim," *Id*. (citation omitted). Notwithstanding this statement, however, the *Kraft Foods, Inc*. Court found that a particular limitation in the specification was properly read into a claim where that limitation was employed in every disclosed embodiment set forth in the specification. Similar to the embodiments before the *Kraft Foods, Inc*. court, in the instant case, Tetrasodium Pyrophosphate is delineated as a necessary material in every embodiment that is described within the '017' patent. This fact, that all the specific embodiments for the '017' invention contain Tetrasodium Pyrophosphate, supports a construction of the term catalyst as necessarily containing the chemical Tetrasodium Pyrophosphate.

As well, the prosecution history indicates that Tetrasodium Pyrophosphate is a necessary material to the catalyst described within Claim 12. According to the Federal Circuit, arguments made during prosecution of

a patent application can estop contrary arguments or assertions made by that party during litigation. Allen Eng'g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1350 (Fed.Cir.2000). In obtaining patent "017," plaintiff's counsel argued in an appeal brief presented to the United States Patent Office that the crux of the '017' invention was "the combination of the salt with an emulsifier stabilizer." *Plaintiff's Markman brief,* Exhibit F at 8. Although this particular sentence does not clarify what chemical or material constitutes "the salt," other passages in the appeal brief elucidate that the salt is Tetrasodium Pyrophosphate. In fact, one such passage within the appeal brief that specifically equates the term catalyst to Tetrasodium Pyrophosphate is the following: "Moreover, the examiner has ignored the fact that the combination as claimed is heat resistant and maintains material in suspension after heat treatment which does result from a cooperative relationship between the catalyst, tetrasodium pyrophosphate, and the emulsifier/stabilizer which produces new, unexpected and useful functions." *Id.,* Exhibit F at 10. As well, the following passage from the conclusion of the appeal brief evinces that the use of Tetrasodium Pyrophosphate specifically is the locus of plaintiff's invention: "... it is not obvious from the references cited to utilize tetrasodium pyrophosphate in combination with an emulsifier to make the emulsifier retain solids in solution after sterilization heating." *Id.,* Exhibit F at 13. In all, during prosecution, plaintiff represented that the crux of his invention was the use of Tetrasodium Pyrophosphate, an ingredient plaintiff named specifically, combined with an emulsifier/stabilizer, an ingredient plaintiff always described generically. Having made this representation for prosecution purposes, plaintiff cannot now seek to broaden the term catalyst to include not just Tetrasodium Pyrophosphate but any other material that might function in the same way but which plaintiff did not name or even attempt to include during his prosecution of patent '017.'

Moreover, the court notes that a claim differentiation argument by plaintiff would not be persuasive to the court. Plaintiff may point out that Claim 13 is in all respects the same as Claim 12 except for the fact that Claim 13 specifies that catalyst means Tetrasodium Pyrophosphate. Based on this comparison of Claim 12 to Claim 13, plaintiff may argue that the doctrine of claim differentiation mandates that the term "catalyst" used Claim 12 be construed in a different manner from the specific catalyst described in Claim 13. While this court does acknowledge that "claim differentiation ... creates a presumption that each claim in a patent has a different scope," the court notes that claim differentiation is "not a hard and fast rule of construction." Kraft Foods, Inc. v. International Trading Co., supra, 203 F.3d 1362, 1368 (Fed.Cir.2000) (citation omitted). As the Federal Circuit has stated, "[C]laim differentiation can[not] broaden claims beyond their correct scope," as "the written description and prosecution history [can] overcome any presumption arising from the doctrine of claim differentiation." *Id.* (citation). Based on this case law, this court finds that plaintiff asks for too broad a construction that is contradicted by the '017' patent's specification and prosecution history when plaintiff asks the court to construe the term catalyst to mean any substance that maintains ingredients in suspension after heat processing, including a broad range of this substance's equivalents, namely any buffered salts, buffers or other chemicals.

Lastly, the court notes that plaintiff's counsel appears to be confused about how patent claims involving 'pioneer inventions' are construed. Throughout plaintiff's papers and at oral arguments, plaintiff's counsel continued to exhort that the claims in the '017' patent should be interpreted broadly, so that the term catalyst is construed to encompass every and any substance that maintains ingredients in suspension after heat processing, because the invention protected by the '017' patent is a pioneering invention. To flesh out this argument, the court asked plaintiff's counsel during oral arguments what case law supported this statement, and plaintiff's counsel answered, " *Markman*." After plaintiff's counsel stated this, the court re-read Markman v. Westview Instruments, Inc., 517 U.S. 370 (1996). As far as the court can see, there is nothing within *Markman* that indicates that plaintiff's invention is a pioneering invention, nor is there any language in *Markman* indicating that where a patent involves a pioneering invention, the court should simply refrain

from construing a term such as 'catalyst' and instead should let the term be understood in the broadest way possible. *See id*. In fact, the court's own research as to pioneer inventions refutes plaintiff's counsel's suggestion that the term 'catalyst' simply should be defined as broadly as possible. The Federal Circuit has specifically stated, "even ... 'pioneer' status does not change the way infringement is determined ... [because] [t]he patentee's disclosure, the prosecution history, and the prior art still provide the background against which the scope of claims is determined." Texas Instruments, Inc. V. United States International Trade Commission, 846 F.2d 1369, 1370 (Fed.Cir.1988).

In summary, the court CONSTRUES the term catalyst to mean a substance composed by the specific substance Tetrasodium Pyrophosphate. This narrow construction of the term catalyst best meets the command of federal patent law that instructs a patentee to set forth a claim that "particularly point[s] out and distinctly claim[s] the subject matter which the applicant regards as his invention." 35 U.S.C. s. 112. If this court were to allow plaintiff a construction of catalyst that encompasses every and any substance that maintains ingredients in suspension after heat processing, such a construction would undermine the fair notice function of the requirement that the patentee distinctly claim the subject matter disclosed in the patent from which he can exclude others temporarily. *Accord* Athletic Alt., Inc. v. Prince Mfg., Inc., 73 F.3d 1573, 1581 (Fed.Cir.1996). In fact, to substantiate the notice intended by federal patent law, the Federal Circuit specifically has held that "[w]here there is an equal choice between a broader and a narrower meaning of a claim, and there is an enabling disclosure that indicates that the applicant is at least entitled to a claim having the narrower meaning, [the Federal Circuit] considers the notice function of the claim to be best served by adopting the narrower meaning," *Id*.

C. Amount of the Catalyst

Claim 1 sets forth "[a] heat resistant milk substitute comprising a mixture of ... whey in the range of about 10% to about 45% by dry weight of said mixture; ... a sweetner; ... a catalyst to maintain ingredients in suspension after heat processing in the range of 0.5% to 3% by dry weight of said mixture comprising tetrasodium pyrophosphate; and ... a stabilizer emulsifier. *Plaintiff's Markman brief,* Exhibit A (copy of patent "017").

According to plaintiff, the catalyst in Claim 1, and not the Tetrasodium Pyrophosphate, amounts to 0.5% to 3.5% of the entirety of the milk substitute mixture, and an unspecified portion of the catalyst consists of Tetrasodium Pyrophosphate. *See id*. at 15 (plaintiff contending, "Of crucial interest in this claim is the fact that THE CATALYST IS DEFINED IN THE RANGE OF 0.5% TO 3% BY DRY WEIGHT NOT the Tetrasodium Pyrophosphate"). Plaintiff supports this interpretation by arguing that because "the term 'comprising' is an open-ended term of art used in patent law," the language of Claim 1 simply means that, at a minimum, the catalyst must contain a "minuscule amount of Tetrasodium Pyrophosphate" but that "the balance of the catalyst may be another chemical entirely." *Id*. In other words, whereas defendants ask this court to construe that tetrasodium pyrophosphate must amount to at the least 0.5%, plaintiff contends that the amount of tetrasodium pyrophosphate is unspecified by Claim 1 and hence should be construed to be any amount, whether smaller or bigger than 0.5%.

The court is not persuaded by plaintiff's interpretation of Claim 1. First, the court notes that in Claim 1, the range "0.5% to 3.5%" is used to modify the term "Tetrasodium Pyrophosphate" and not the term "catalyst." The position of this modifier, 0.5% to 3 .5%, indicates that it is Tetrasodium Pyrophosphate, not the catalyst, that amounts to 0.5% to 3.5% of the dry milk mixture. In fact, because of where the modifier is placed within the structure of the sentence containing the term "catalyst," it would be cumbersome and illogical to

interpret Claim 1 as meaning that the catalyst amounts to 0.5% to 3.5% of the dry milk mixture. Moreover, the court notes that the court's interpretation does not necessarily conflict with plaintiff's argument as to the open-ended nature of the word "comprising." The term "comprising" may be used to suggest that the catalyst may consist of other unspecified materials in addition to Tetrasodium Pyrophosphate. *See* Moleculon Research v. C.B.S., Inc., 793 F.2d 1261, 1271 (Fed.Cir.1986) (stating that the term "comprising" does not exclude additional, unrecited elements, but also suggesting that this term does not imply the necessary existence of additional, unrecited elements). However, regardless of whether unspecified substances might or might not be found within the catalyst, the modifying language and grammar used in Claim 1 expresses that the catalyst referred to in Claim 1 is comprised, in whole or in part, by Tetrasodium Pyrophosphate, and the amount of Tetrasodium Pyrophosphate is equal to 0.5% to 3.5% of the dry weight of the milk substitute mixture.

The specification of patent '017' also supports a construction of the amount of Tetrasodium Pyrophosphate as being equal to 0.5% to 3.5% of the entirety of the milk substitute mixture. In all of the specific embodiments described in the specification as examples of the invention, Tetrasodium Pyrophosphate is delineated as ranging from 0.5% to 3.5% of the milk replacement mixture. Similarly, the amounts of Tetrasodium Pyrophosphate detailed in all of the '017' patent's nineteen claims, except Claims 12 and 13, the claims at issue here, are specifically explicated as ranging from 0.5% to 3.5% or specifically equal to an amount within this range. *See* Georgia-Pacific Corp. v. U.S. Gypsum Co., 195 F.3d 1322, 1331 (Fed .Cir.1999) ("[u]nless the patent otherwise provides, a claim term cannot be given a different meaning in the various claims of the same patent"). There is no indication within the claims, the specification, or even within the prosecution history that the amount of tetrasodium pyrophosphate should or can amount to anything other than 0.5% to 3.5% of the total percentage of the heat resistant milk substitute. Hence, based on all of the foregoing, the court CONSTRUES that the term catalyst, as used in Claims 1, 12, and 13, means a substance composed, in whole or in part, by Tetrasodium Pyrophosphate, and the amount of Tetrasodium Pyrophosphate is equal to 0.5% to 3.5% of the dry weight of the milk substitute mixture, regardless of the existence of other substances in the catalyst.

D. Construction of the Word "Tetrasodium Pyrophosphate"

Plaintiff asks the court to construe the term Tetrasodium Pyrophosphate as literally encompassing other common names used for this substance, including "TSPP, pyro, sodium pyrophosphate, [t]etrasodium diphosphate [,][d]iphosphohoric acid, [t]etrasodium salt, USDA number 7722-88-5." *Plaintiff's Markman brief* at 14, 16. Defendants contend that Tetrasodium Pyrophosphate should not be construed as literally encompassing these other chemicals because "[n]one of [these] chemicals ... are identified anywhere in the '017['] patent." *Defendant's Markman brief* at 6.

Insufficient evidence has been presented for this court to determine what common names are encompassed by the term "Tetrasodium Pyrophosphate." Plaintiff's list of common names may be correct synonyms for Tetrasodium Pyrophosphate, but he fails to provide substantiating evidence. Plaintiff may contend that he has set forth evidence in his Exhibits, but the court notes that plaintiff fails to point to any particular part of the Exhibits as support for his argument about synonymous common names. Moreover, the court notes that while the court did discover possible support for construing Tetrasodium Pyrophosphate as a chemical related to Sodium Pyrophosphate, it is unclear from this evidentiary source whether Tetrasodium Pyrophosphate is synonymous with or just related to Sodium Pyrophosphate. *See defendants' Markman brief,* Exhibit 1 at 65 (providing the definition of Tetrasodium Pyrophosphate contained in *The Condensed Chemical Dictionary*). Consequently, the court **DECLINES** to find the words that Tetrasodium

Pyrophosphate is synonymous with. Moreover, for completeness of the written record, the court notes that plaintiff's counsel represented at oral arguments that the court did not have to define synonyms for Tetrasodium Pyrophosphate.

IV. Conclusion

The court's conclusion is based on all of the foregoing. As to claims 1, 12, and 13 of Patent 6,020,017, the court **CONSTRUES the term "catalyst" to mean a mixture composed, in whole or in part, by Tetrasodium Pyrophosphate, with the amount of Tetrasodium Pyrophosphate being equal to 0.5% to 3.5% of the dry weight of the milk substitute mixture, regardless of the possible existence of other, non-Tetrasodium Pyrophosphate substances in the catalyst.**

As for plaintiff's request that the court construe synonyms for the word "Tetrasodium Pyrophosphate," the court **DECLINES** to set forth such synonyms.

IT IS SO ORDERED.

S.D.Cal.,2003.
Mingione v. U.S. Food Corp.