United States District Court,
S.D. Florida, Miami Division.

CARGILL, INCORPORATED,
Plaintiffs.
v.
ZEIGLER BROS., INC,
Defendants.

No. 02-20829-CIV-JORDAN

Oct. 26, 2004.

MARKMAN ORDER CONSTRUING DISPUTED CLAIM LANGUAGE

ADALBERTO JORDAN**, District Judge.**

In July and October of 2001, Judge Moore construed the claims of U.S. Patent No. 5,698,246 (the '246 patent) in *Cargill, Inc. v. Salt Creek, Inc.,* Case No. 00-4795-CIV-MOORE, following argument received at a *Markman* hearing and additional briefing by the parties. FN1 The case at bar involves the same patent. Although Judge Moore's previous opinion does not have issue preclusive effect against Zeigler in this case, to the extent the parties do not raise new arguments, I will defer to Judge Moore's previous construction of the claims. FN2

FN1. *See* Judge Moore's orders on Cargill's emergency motion for a preliminary injunction [filed July 27, 2001], and on the *Markman* hearing [filed October 19, 2001].

FN2. *See* Markman v. Westview Instr., Inc., 517 U.S. 370, 391 (1996) (holding that issue preclusion cannot be asserted against new defendants but noting that, generally, *stare decisis* should promote uniformity in the claim construction of a given patent). *See also* Tate Access Floors, Inc. v. Interface Architectural Resources, Inc., 185 F.Supp.2d 588, 595 n. 4 (D.Md.2002) ("[p]rior claim constructions, when on point, are given deference under the doctrine of *stare decisis* in the interest of uniformity and consistency in claim interpretation")); KX Indus., L.P. v. PUR Water Purification Prods., Inc., 108 F.Supp.2d 380, 387 (D.Del.2000) (same); and Wang Labs, Inc. v. OKI Electric Indus. Co., Ltd., 15 F.Supp.2d 166, 175 (D.Mass.1998) (same).

Having therefore adopted the unchallenged constructions set out by Judge Moore in the *Salt Creek* litigation, I must now consider the parties new proposed claim constructions and supporting briefs in this case regarding any terms not previously construed by Judge Moore. Based on the foregoing, the following order construes all the disputed claim language of the '246 patent in this case.

The parties seek clarification of the proper construction of the terms "coating;" "comprising;" "inner coating comprising an edible unsaturated oil;" a crustacean "foodstuff;" a "crosslinked blend comprising alginate and protein;" "liquid media;" "particulate nutrient;" and "antimicrobial." FN3

FN3. The terms "coating" and "comprising" are included within, and will therefore be defined through

construction of, the phrases "inner coating comprising an edible unsaturated oil" and/or "crosslinked blend comprising alginate and protein."

I. STANDARD

In determining the meaning and scope of the patent claims, terms should preferably be given their clear and ordinary meaning. Specifications may provide explicit alternative definitions which the Court should consider. *See* Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996) (noting that the written description "is the single best guide to the meaning of a disputed term"). A court should endeavor to resolve any ambiguity in the claim construction by relying primarily on the intrinsic evidence, including the specification and file history. Id. at 1583. However, a district court should not construe claim limitations by importing a characteristic of a disclosed or preferred embodiment into that term. *See* Generation II Orthotics, Inc. v. Medical Technology, Inc., 263 F.3d 1356, 1367 (Fed Cir.2001).

Finally, a court may consider a definition advanced by one skilled in the patent art, so long as such definition is not precluded by the prosecution history or inconsistent with the patent. *See* A.F.G. Indus., Inc. v. Cardinal IG Co., 239 F.3d 1239, 1248 (Fed.Cir.2001). The Federal Circuit has encouraged courts to consider and weigh extrinsic evidence, including testimony of scientific witnesses, to guide its claim construction; indeed, "failure to take into account the testimony of persons of ordinary skill in the art may constitute reversible error." Id. at 1249. A court may also rely upon other forms of extrinsic evidence, including dictionaries, to the extent that such evidence does not contradict any definition contained in the patent documents. *See* Optical Disc Corp. v. Del Mar Avionics, 208 F.3d 1324, 1335 (Fed.Cir.2000).

II. THE PATENT

Claim 1 recites:

1. A liquid crustacean foodstuff comprising: an enrobed particulate crustacean foodstuff in a liquid media comprising an antimicrobial,

the enrobed particulate crustacean foodstuff comprising a particulate nutrient feed, an inner coating comprising an edible unsaturated oil having a melting point of below about 29 [degrees] C. and an outer coating comprising a gel which is complexed or crosslinked to an extent which is effective to contain the oil-coated feed in an aqueous environment and which is ingestible by the crustacean.

Claim 3 recites:

3. A liquid crustacean foodstuff as recited in claim 1, wherein the outer coating comprises a crosslinked blend comprising alginate and protein.

See '246 patent, col. 8, lines 25-36; 42-44 (Claims 1 and 3) .FN4 Thus, the patent teaches an invention comprising three basic parts: (1) a particulate nutrient feed, (2) an inner coating of oil, and (3) and an outer coating of gel.FN5

FN4. Dependent Claims 2 and 4 through 6 are not in dispute.

FN5. The word "of" at this juncture is used only to demonstrate the distinction the claim makes between the parts of the invention, not to indicate judgment as to the scope of the composition of those layers, a matter separately considered below.

III. CLAIM CONSTRUCTION

First, I will construe the term "inner coating comprising an edible unsaturated oil," thereby also addressing the included terms, "coating" and "comprising." Cargill argues that these terms were correctly interpreted by Judge Moore in the *Salt Creek* litigation and should be given the same meaning in this case. I agree. As Judge Moore wrote:

A coating is a layer of some material covering something else. The patent does not specify that such layers be homogenous, restricting the presence of the oil in the bead to the inner coating ... The composition of each layer distinguishes it from the other layers. The composition of the inner ... coating[ ]-that is, the amount of oil ... present in the particular layer-is determined with regard to the other parts of the invention, but not with regard to the other elements of the particular layer. As such, the patent ... is not limited to beads containing an inner coating comprised of any particular percentage of oil. For example, the patent contemplates that even a bead that contains a substantially homogenous feed particle would nevertheless have a greater concentration of oil on the surface of the particle, thereby making up the "inner coating comprising an ... oil."

Zeigler disputes Judge Moore's construction and advances a construction that narrows the claim by requiring that "most, if not all, of the nutrient feed particles within a bead must be completely coated with oil." Zeigler further argues that one skilled in the art would concur with this construction, citing testimony by the inventor and one of Cargill's former experts. I do not agree. The insertion of this qualification imprecisely limits the scope of the claim. There is no requirement in the patent language that the coating be "mostly" or "completely" comprised of oil, and I do not read the experts' depositions to say that there is such a requirement.FN6 As Judge Moore stated, "[c]omprising" means "including but not limited to." FN7 The term "comprising" contemplates and permits the inclusion of other ingredients or components that are not listed in the claim. The presence of additional ingredients or components in the accused product does not mean that the product does not infringe a claim of the patent. Thus, the claim does not require that the inner coating consist "completely" of oil. Moreover, depending on the composition of a particular feed particle, the percentage of oil on the surface layer need not even be above 50%, provided that the concentration of oil on the surface of the particle is greater than the concentration of oil within the feed particle, and sufficient to coat the particle.

FN6. As Cargill correctly points out, the testimony of Dr. Fulcher does not address claim construction, but rather relates to his finding that Zeigler's EZ Larva and EZ Artemia products contained protein particles within an oil coating of "most, if not all" of the surface of the particle. His statement was in reference to Zeigler's products, not the construction of the '246 patent claims. *See* Fulcher Depo. at 30-31.

FN7. This construction of the term comprising also addresses Cargill's proposed construction of the term "foodstuff comprising ... an inner coating" of oil.

Second, the parties dispute the proper construction of a crustacean "foodstuff." Cargill proposes the following: "a substance appropriate for consumption by crustaceans being raised for human consumption." Zeigler advocates a broader construction: "any product that can be consumed by a crustacean." The difference between these two construction presents the issue of whether the patent encompasses a foodstuff which could be used to feed crustaceans which will not be suitable for human consumption, e .g., crustaceans being raised for pets, aquariums, zoos or for experimental purposes.

Cargill correctly points out that Judge Moore did conclude that a "crustacean foodstuff" is one "that is appropriate for consumption by crustaceans." In coming to his conclusion, Judge Moore noted that the

parties advanced minimal argument at the hearing relating to the term "crustacean foodstuff," and Salt Creek never proffered construction of the term in the briefing provided to the court. Here, however, the parties clearly dispute the meaning of "foodstuff." Thus, I must go beyond Judge Moore's construction, and construe the term in light of the arguments presented in the parties' briefs.

In the absence of any direction from the experts on this term, I look to the ' 246 patent specification to resolve any ambiguity. The first paragraph of the background of the invention states, "Aquaculture has become an increasingly significant contributor to the world's *seafood* supply." (emphasis added). Moreover, "[a]n increasing demand for *seafood products* ... has created the need for increased production efficiencies in crustacean, shellfish and finfish hatchery and nursery facilities. A critical factor effecting *these* aquaculture operations is the feeding process." (emphasis added). Furthermore, while the term "aquaculture" may sometimes include the cultivation of plants and animals for purposes other than food, clearly one definition is "the science, art, and business of cultivating marine or freshwater *food* fish or shellfish, such as oysters, claims, salmon, and trout, under controlled conditions." *See* AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed.2000) (emphasis added) . FN8 Thus, the ' 246 patent specification demonstrates that "crustacean foodstuff" means a substance appropriate for consumption by crustaceans being raised for human consumption. Notably, "crustacean foodstuff" generally might also encompass feed suitable for purposes other than crustaceans being raised for human consumption, but "crustacean foodstuff" as used in the ' 246 patent can not encompass feed which is not suitable for crustaceans raised for human consumption.

FN8. As used herein, references to dictionaries do not include page numbers because on-line sources were used; the definitions may be found at <http://dictionary.reference.com/>.

Third, the parties dispute the meaning of the phrase "a crosslinked blend comprising alginate and protein." Zeigler argues that the term means that "both the protein (gelatin) and the alginate are ionically crosslinked in a chemical reaction," pointing to the '246 patent's description of the preferred embodiments, which states: "The oil coated-nutrient feed is encapsulated in the alginate/gelatin matrix by cross linking the gelatin and alginate." *See* '246 patent, col. 4, lines 65-67. Cargill argues that Zeigler's construction is meritless because it attempts to read a specific embodiment of the claim into the claim language. Cargill argues that the term means "a blend chemically bonded where the blend contains both alginate and protein, but [which does] not necessarily [require the alginate and protein to be] cross-linked to each other."

The '246 patent specification describes the crosslinked blend by stating that the gel:

may be made from a complex coacervate of components, organic polymers, gums such as acacia (gum arabic) and carrageenan, sugar, such as maltodextrins and sucrose, ethly cellulose, wax, fat or protein. The gel is complexed or crosslinked to provide hydrophobic properties to the oil-coated feed ... A "complexed coacervate" means an aggregate of colloidal droplets held together by electrostatic attractive forces ... The gel also *may* be a protein which upon crosslinking ... will encapsulate the oil-coated feed ... In an important aspect of the invention, the hydrocolloid gel comprises a gelled blend of alginate, *such* as sodium alginate and polypeptides or proteins such as gelatin ... The gel also *may* include a water soluble hexametaphosphate such as sodium hexametaphosphate, the alginate/gelatin/hexametaphosphate blend having a ratio in the range of from about 5:1:1 to about 2.75:1:0.5.

See '246 patent, col. 4, lines 15-46 (emphasis added).

On its face, the phrase "crosslinked blend comprising alginate and protein," as used in Claim 3, does not require the alginate and protein to be crosslinked to each other. This is especially true in light of the language quoted above indicating that a crosslinked blend *may* be comprised of many ingredients, including alginate and protein. On one hand, the specification indicates that, within a crosslinked blend, it is possible

that some of the components will be crosslinked to some of the other components in the blend. On the other hand, it is not required that all components be crosslinked to each of the other components in the blend. Moreover, the specification indicates that the protein within the crosslinked blend is not required to be gelatin. *See* '246 patent, col. 4, lines32-34 ("In an important aspect of the invention, the ... gel comprises a gelled blend of alginate, such as sodium alginate and polypeptides or proteins *such as* gelatin.") (emphasis added). In other words, the protein can be a substance other than gelatin. The preferred embodiment, which Zeigler says requires the crosslinking of gelatin and alginate, is nothing more than example of the invention. The preferred embodiment does not indicate that the protein would have to be crosslinked to the alginate if the protein were something other than gelatin. Thus, "crosslinked blend comprising alginate and protein" does not mean that the alginate and protein must be crosslinked to each other. On the contrary, "crosslinked blend comprising alginate and protein" means a blend, including but not limited to, some form of alginate and some form of protein, in which some, but not necessarily all, of the components are crosslinked together.FN9

FN9. This construction of "crosslinked blend ..." comports with Cargill's proposed construction, but not for the reasons Cargill set forth in its briefs.

Fourth, the parties contest the meaning of the words "liquid" and/or "liquid media." Cargill says "liquid media" means "a substance that is neither solid nor gas, that is easily flowable, and that contains sufficient quantities of water or other fluids as to allow the suspension of the beads or particles within it." Meanwhile, Zeigler argues that one skilled in the art would define "liquid" as "providing sufficient liquid to store solid particles so that the combination conforms to the shape of the container and flows if pressure is applied." Zeigler further suggests that the "liquid" requirement would be satisfied by a product categorized as a "slurry." The definition of "slurry" is "[a] thin mixture of a liquid, especially water, and any of several finely divided substances, such as cement, plaster of Paris, or clay particles." *See* AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed.2000). In turn, Cargill argues that Zeigler's definition is too broad, encompassing "a pile of BB's lying in an air-filled, liquid-free container." I agree with Cargill; Zeigler's construction broadens the term beyond its ordinary and clear meaning. However, Cargill's use of the phrase "to allow the suspension of the beads or particles within it" makes Cargill's construction too narrow.

Indeed, substances other than liquids can flow.FN10 A slurry is not necessarily (or always) a liquid because it can be comprised of both liquid and solid elements. The fact that a substance contains a liquid does not necessarily make that substance also a liquid. Therefore, Zeigler's proposed construction must fail. "Liquid" is defined as "the state of matter in which a substance exhibits a characteristic readiness to flow, little or no tendency to disperse, and relatively high incompressibility." *See* AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed.2000). "Media" is the plural of "medium," which is defined as "an intervening substance through which something else is transmitted or carried on." *See* id. Thus, I conclude that "liquid media" means a substance that is neither solid nor gas, that exhibits a characteristic readiness to flow, little or no tendency to disperse, relatively high incompressibility, and that is suitable to be used as an intervening substance through which another substance, is transmitted, carried or suspended.FN11

FN10. "Flow" is defined as "to move or run smoothly with unbroken continuity, as in the manner characteristic of a fluid." *See* AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed.2000). Moreover, "fluid" is defined as "[a] continuous, amorphous substance whose molecules move freely past one another and that has the tendency to assume the shape of its container; a liquid or gas." Id. Thus, both liquids and gases may flow.

FN11. I agree with Cargill that the "suspension" quality of the liquid media is addressed by the '246 patent specification, and accordingly I have addressed the suspension quality in my construction of "liquid media."

Nevertheless, the suspension power of liquid is not limited to calcium alginate microcapsules.

Fifth, the parties dispute the meaning of the term "particulate nutrient." Zeigler argues that one skilled in the art would look to the meaning of the term "nutrient" as used by nutritionists, which it says is "any substance that when consumed in the diet is beneficial to the animal in some normal physiological function of that animal." *See* Lawrence Depo. at 3:24-4:3. On the other hand, Cargill proposes the following: "a substance in solid form that provides meaningful nourishment to a crustacean; in other words, a substance in food that an animal requires to live, grow, or remain fit and healthy."

At first glance, the parties' proposed constructions do not seem all that different. Yet, neither is completely accurate. Again, Zeigler's construction is too broad and Cargill's construction is too narrow. It is not necessary, as Cargill suggests, to include the word "crustacean" within the meaning of "nutrient." Likewise, Zeigler's inclusion of "some normal physiological function of the animal" is unnecessary.FN12 Thus, I look to the clear and ordinary meaning of the term. "Particulate" means "of, or relating to, or formed of minute separate particles." *See* AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (4th ed.2000). "Nutrient" means "a source of nourishment, especially a nourishing ingredient in a food." *See* id. "Nourishment" is the noun form of "nourish," which means "to provide with food or other substances necessary for sustaining life and growth." *See* THE AMERICAN HERITAGE STEDMAN'S MEDICAL DICTIONARY (2002). Therefore, I conclude that "particulate nutrient" means a substance, formed of minute separate particles, which provides some meaningful nourishment necessary for sustaining life and growth.

FN12. Zeigler proffered expert testimony to support its construction of the claim. The claim language, however, is unambiguous, and the expert's testimony is not necessary to aid the Court's understanding of the art. Reliance on extrinsic evidence would be inappropriate.

Finally, the parties dispute the meaning of "antimicrobial." Zeigler argues that the term means "any product that kills or suppresses growth of microbes." Cargill, on the other hand, argues that "antimicrobial" means "a substance destroying or inhibiting the growth of microorganisms." The words "microbe" and "microorganism" are essentially synonomous, although "microbe" is no longer in technical use.FN13 Therefore, I conclude that the parties' constructions are very much alike, and in accordance the clear and ordinary meaning of "antimicrobial." I conclude that "antimicrobial" is a substance which is capable of destroying or inhibiting the growth of microorganisms.

FN13. *See* THE AMERICAN HERITAGE STEDMAN'S MEDICAL DICTIONARY (2002) (defining "microbe" as "a microorganism, especially a bacterium that causes disease; a minute life form. No longer in technical use.").

But, there is a wrinkle. The parties dispute whether a certain substance, chloramphenicol, comes within the meaning of antimicrobial as used in the '246 patent. Zeigler argues that, because antibacterial agents are a subset of antimicrobial agents, chloramphenicol is an antimicrobial under the definition. For this proposition, Zeigler cites the deposition of Dr. Lillford (p. 83:2-5). Cargill, however, points out in response that Dr. Lillford actually testified that, while chloramphenicol could be characterized as an antimicrobial, in the context of feed, chloramphenicol would not be used as an antimicrobial. In this instance, both Cargill and Zeigler urge me to consider extrinsic evidence. In my view, extrinsic evidence would be inappropriate because the term is unambiguous.

It is true that the '246 patent specification describes various embodiments in which the antimicrobial is propylene glycol, glycerol or propionic acid, but the specification does not specifically exclude other forms

of antimicrobial such as chloramphenical. Zeigler, however, has acknowledged that foodstuffs containing chloramphenicol are not appropriate for animals being raised for human consumption.FN14 As I concluded earlier, "crustacean foodstuff" as used in the ' 246 patent is limited to feed suitable for crustaceans being raised for human consumption. Therefore, I must conclude that chloramphenicol is not appropriate as an antimicrobial under my construction of that term as used in the ' 246 patent.

FN14. In its argument on the construction of the term "foodstuff," Zeigler states that products containing chloramphenicol are foodstuffs "because the claims are not limited to foodstuffs for animals for human consumption." Zeigler Proposed Markman Order at 3[D.E. 284].

The summary judgment order will follow in the next couple of days.

DONE AND ORDERED in chambers in Miami, Florida, this 25th day of October, 2004.

S.D.Fla.,2004.
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