United States District Court,
N.D. Ohio, Eastern Division.

ZINKAN ENTERPRISES, INC,
Plaintiff.
v.
NALCO COMPANY,
Defendant.

Dec. 18, 2008.

Christina J. Moser, Thomas H. Shunk, Baker & Hostetler, Cleveland, OH, for Plaintiff.

Alan L. Unikel, Joseph H. Herron, Joseph R. Lanser, Seyfarth Shaw, Chicago, IL, H. Alan Rothenbuecher, Jay E. Krasovec, Schottenstein, Zox & Dunn, Cleveland, OH, T. Earl Levere Schottenstein, Zox & Dunn, Columbus, OH, for Defendant.

Memorandum of Opinion and Order

PATRICIA A. GAUGHAN**, District Judge.**

INTRODUCTION

This matter is before the Court to construe certain disputed terms found in Claims 1 and 6 of U.S. Patent No. 7,108,800 ("the '800 Patent") and Claims 1, 3, 7, 10, 12, 16, 19, 21 and 25 of U.S. Patent No. 7,398,935 ("the "5 Patent"). The Court's claim construction is set forth below.

BACKGROUND

Plaintiff Zinkan Enterprises, Inc. brings this action against defendant Nalco Company. Defendant is the assignee of the '800 and "5 Patents. The "5 Patent is a continuation-in-part of the '800 Patent.

The patents claim methods for preventing the agglomeration of particulate material containing coal and preventing the adhesion of this particulate material to surfaces in sub-freezing temperatures. Coal contains trace amounts of water. When the temperature drops below freezing, the water freezes and causes the coal to agglomerate or clump together. The wet coal may also adhere to surfaces such as the walls of a train car used to transport the coal in such temperatures. Such agglomeration and adhesion is undesirable. The patents further claim methods for preventing the generation of dust during the transport or handling of the particulate material. The "5 Patent also claims a method for preventing the generation of dust when a vehicle travels on a dirt road.

Claim 1 of the '800 Patent is representative:

A method of preventing the agglomeration of a particulate material comprising coal and the adhesion thereof to surfaces in subfreezing temperatures comprising:

a) providing a particulate material comprising coal;

b) providing a concentrated product which comprises a mixture of from about 45 to about 90 weight percent of glycerin, from about 5 to about 50 weight percent of water, about 0.5 to about 3 weight percent of fatty acids and esters thereof and from about 2 to about 15 weight percent of water soluble salts wherein the freezing point of said concentrated product is at least about -35 (deg.)C;

c) diluting the concentrated product with about 10-400 weight percent of water, based on the amount of said concentrated product to form a diluted product;

d) applying to the particulate material an amount of the dilute product effective to suppress agglomeration for the particulate material and its adhesion to surfaces.

Plaintiff's First Amended Complaint contains three claims. Claim One seeks a declaration that plaintiff does not infringe any claim of the '800 Patent or "5 Patent. Claim Two seeks a declaration that the claims are invalid. Claim Three seeks a declaration that the patents are unenforceable. Defendant's First Amended Counterclaim alleges that plaintiff is directly infringing, contributorily infringing and inducing others to infringe the claims of the ' 800 and "5 Patents. Defendant further charges that plaintiff's infringement is willful.

The parties now ask the Court to construe certain disputed claim terms.

STANDARD OF REVIEW

"[T]he interpretation and construction of patent claims, which define the scope of the patentee's rights under the patent, is a matter of law exclusively for the court." Markman v. Westview Instruments, 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "To ascertain the meaning of claims, [the court considers] three sources: The claims, the specification, and the prosecution history." Markman, 52 F.3d at 979. The words of a claim are generally given their ordinary and customary meaning. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed.Cir.2005). The ordinary and customary meaning is to be determined from the perspective of one of ordinary skill in the art at the time of the invention. Id. at 1313. "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id*.

Accordingly, the court first looks to the claim itself, read in view of the specification. *Id*. at 1315 (The specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term"). However, while the court may look to the written description to define a term already in a claim limitation, the court may not read a limitation from the written description into a claim. *Id*. at 1323.

As stated above, the prosecution history should also be considered by the court when conducting claim construction. Phillips, 415 F.3d at 1317. The "prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the

invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.; see also* Chimie v. PPG Indus., Inc., 402 F.3d 1371, 1384 (Fed.Cir.2005) ("The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution."). A statement made during prosecution will constitute a surrender of claim scope if the disclaimer is "clear and unmistakable" and "unambiguous." Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1325-26 (Fed.Cir.2003); Sandisk Corp. v. Memorex Prods., 415 F.3d 1278, 1287 (Fed.Cir.2005). Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers. Chimie, 402 F.3d at 1384. Moreover, the prosecution history of a parent application applies with equal force to a later patent that contains the same claim limitation. Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 980 (Fed.Cir.1999); *see also* Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1349 (Fed.Cir.2004) ("the prosecution history of one patent is relevant to an understanding of the scope of a common term in a second patent stemming from the same parent application"). "The relevant inquiry is whether a competitor would reasonably believe that the applicant had surrendered the relevant subject matter." Cybor Corp. v. Fas Techs., Inc., 138 F.3d 1448, 1457 (Fed.Cir.1998).

All other evidence is considered extrinsic and may be relied upon by the court in its discretion. Markman, 52 F.3d at 980; Phillips, 415 F.3d at 1317. However, extrinsic evidence is less reliable than intrinsic evidence. Phillips, 415 F.3d at 1318. Thus, the court should restrict its reliance on extrinsic evidence to educating itself regarding the field of invention or to determining what a person of ordinary skill in the art would have understood the claim terms to mean. Id. at 1319; *see also* Markman, 52 F.3d at 986 ("It is not ambiguity in the document that creates the need for extrinsic evidence but rather unfamiliarity of the court with the terminology of the art to which the patent is addressed."). Extrinsic evidence may not be used for the purpose of varying or contradicting the terms of the claims. Markman, 52 F.3d at 981.

As a result, excessive reliance should not be placed on dictionaries. Phillips, 415 F.3d at 1321. "The main problem with elevating the dictionary to such prominence is that it focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.... [H]eavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification." *Id.*

DISCUSSION

The parties dispute the meaning of three terms found in the claims of the ' 800 Patent and nine terms found in the claims of the "5 Patent. FN1 Plaintiff apparently identified these terms as requiring construction by the Court. Defendant argues that none of the claim terms identified by plaintiff requires construction as each is unambiguous and may be clearly understood by one of ordinary skill in the art. However, defendant submits its own proposed construction of the disputed terms "should the Court find that constructions are necessary." Defendant states that a person of ordinary skill in the art would have "a bachelor's degree or better in chemistry, mechanical science or engineering, particularly chemical engineering, and some practical experience in freeze control, dust control or both." Plaintiff states that the person of ordinary skill would have "a bachelor's degree in chemistry or similar work experience."

A. The '800 Patent

1. " *wherein the freezing point of said concentrated product is at least about-35 (deg.)C* "

Plaintiff's Proposed Construction: "where the concentrated product will not show coexistence of liquid and

solid at temperatures above -35 (deg.)C (-31 (deg.)F)"

Defendant's Proposed Construction: "where the concentrated product will not begin freezing until at least about -35 (deg.)C"

Discussion and Court's Construction: The Court agrees with defendant that this phrase needs no construction. A jury will be able to understand the words "freezing point." And, the word "about" does not render the claim term indefinite, as plaintiff would have it. Modine Manuf. Co. v. United States I.T.C., 75 F.3d 1545, 1554 (Fed.Cir.1996) ("about" must be given reasonable scope). The Court also declines to eliminate the word "about" from the claim simply because the patent examiner required the Abstract of the '800 Patent to indicate that the "concentrated composition has a freezing point of at least -35 (deg.)C." Plaintiff argues that the examiner must have "viewed the claim term as specifying a precise limit." Plaintiff ignores the fact that the examiner allowed the claim to issue with the word "about" in the claim. The Court cannot now rewrite the claim based on plaintiff's supposition as to what the examiner must have been thinking at the time he required an amendment to the Abstract.

2. " *an amount of the dilute product effective to suppress agglomeration of the particulate material and its adhesion to surfaces* "

Plaintiff's Proposed Construction: "a dosing level of from about two to about four pints of the product as applied per ton of coal that has the result that none of the treated material freezes into a ball, mass, or cluster or attaches by freezing to any surface when the particulate material and surface are exposed to a temperature that is less than 0 (deg.)C"

Defendant's Proposed Construction: "an amount of the dilute product that is sufficient to lessen the amount of particulate material that is collected into a ball, mass or cluster and the amount of particulate material that adheres to surfaces when the particulate material is exposed to a temperature that is less than 0 (deg.)C"

Discussion and Court's Construction: The parties agree that an agglomeration is "a ball, mass, or cluster" and that the claims are directed to agglomeration and adhesion at "subfreezing temperatures" (from the preamble). However, there are several disputes between the parties with respect to this claim term.

First, plaintiff proposes that a more exact dosing level be imported into the claim from a single example in the specification. This the Court declines to do especially where the dosage varies according to a number of factors including the ambient temperature and the amount of precipitation on the surface of the particulate material.

The second dispute involves whether "none" of the particulate material agglomerates or adheres or whether such effects are merely "lessened." The claims all claim a "method of *preventing* agglomeration [and] adhesion ..." (emphasis added). The specification also repeatedly indicates that agglomeration and adhesion are prevented by the present invention. More importantly, during prosecution before the United States Patent and Trademark Office ("PTO"), the inventors effectively defined the word "suppress" as used in Claim 1 as synonymous with "prevent." The word "suppress" was added to the claims to overcome a rejection in light of prior art. The inventors argued that the addition of the word "suppress" rendered the claim "patentable over the prior art, which does not teach or suggest *preventing* the agglomeration of particulate materials ..." (emphasis added). That the present invention prevented agglomeration was repeatedly emphasized during prosecution to obtain allowance of the claims.

Defendant relies on a single statement in the specification of the '800 Patent in support of it's proposed construction. In the specification, the inventors note (in connection with a single example) that one customer noticed "a lessening in their receipt of frozen together or 'agglomerated' coal ..." when the coal was treated according to one of the claimed methods. This single statement cannot serve to compel a construction contrary to that dictated by the prosecution history. The inventors repeatedly informed the examiner that their invention *prevented* agglomeration and adhesion. Those statements made during prosecution are controlling.

Plaintiff's proposed construction also specifies that the agglomeration and adhesion occur by freezing rather than other means. The Court views this as merely a clarification and not a narrowing of the scope of the claims and adopts plaintiff's proposed language. However, the Court declines to adopt the language "has the result that." One of ordinary skill in the art and the jury will understand "effective to prevent."

The Court thus adopts the plaintiff's proposed construction in part. The term is construed to mean, "an amount of the dilute product effective to prevent the particulate material from freezing into a ball, mass, or cluster or attaching by freezing to any surface when the particulate material and surface are exposed to a temperature that is less than 0 (deg.)C"

3. " ***an amount of the dilute product effective to wet the surface of the material and substantially prevent the generation of dust from the particulate material*** **"**

Plaintiff's Proposed Construction: "an amount of the dilute product that has the result that the dust generated from the larger particulate material by the disturbing, handling or processing of the larger-sized particulate matter is not capable of causing any significant health, environmental or safety problems, such as, but not limited to, dust clouds or dust inhalation adverse effects"

Defendant's Proposed Construction: "an amount of the dilute product to sufficiently wet the surface of the material and to substantially lessen the generation of dust from the particulate material"

Discussion and Court's Construction: The Court agrees with defendant that this term needs no construction. It will readily be understood by one of ordinary skill in the art and a jury. The Court rejects plaintiff's invitation to import a specific result into the claim term to give meaning to the word "effective." Such results are extolled in the specification merely as possible benefits and not to be used to limit the scope of the claims. On the other hand, defendant's proposed construction is too broad-"substantially lessen" has a broader meaning than "substantially prevent." The inventors chose the words used to claim their invention and those unambiguous words must control.

B. The "5 Patent

1. " ***a composition consisting of a glycerin-containing by-product formed from a manufacturing process for making fatty acid esters from at least one oil selected from the group consisting of vegetable oil and animal fats*** **"**

Plaintiff's Proposed Construction: "a composition containing only a glycerin-containing by-product formed from a manufacturing process for making fatty acid esters from vegetable oil and/or animal fats and no other constituents"

Defendant's Proposed Construction: "a composition including only a glycerin-containing by-product and other impurities formed from a manufacturing process for making fatty acid esters from at least one oil selected from the group including only vegetable oil and animal fats and other impurities"

Discussion and Court's Construction: The term "consisting of" appears twice in the disputed claim term. In the first instance, it serves to "close" the claim to only a glycerin-containing by-product formed from a manufacturing process for making fatty acid esters as well as any impurities that would normally be associated with or found in that by-product. Manual of Patent Examining Procedure ("MPEP") s. 2111.03. Neither party's proposed construction adequately addresses this fact. Plaintiff's is too narrow in that it precludes the presence of these naturally occurring impurities; defendant's proposal is too broad because it would permit the presence of any impurity whether or not such impurity is ordinarily associated with the glycerin-containing by-product. Significantly, the examiner required the inventors to close the claim during prosecution. To interpret the claim as permitting other constituents would cause it to read on the prior art and invalidate the claim.

The second instance of the term "consisting of" describes a "Markush group." Such a group of alternatives is permissible and does not render the claim indefinite. MPEP s. 2173.05(b). Here, plaintiff's proposed construction adequately describes the scope of the claim.

The term is construed to mean, "a composition containing only a glycerin-containing by-product and the impurities normally found in such a by-product where the by-product is formed from a manufacturing process for making fatty acid esters from vegetable oil and/or animal fats and no other constituents."

2. " *wherein said dosage is an amount sufficient to suppress agglomeration of the particulate material and its adhesion to surfaces upon exposure of the particulate material to said subfreezing temperatures* "

Plaintiff's Proposed Construction: "where the dosage has the result that none of the treated material freezes into a ball, mass, or cluster or attaches by freezing to any surface when the particulate material and surface are exposed to a temperature that is less than 0 (deg.)C"

Defendant's Proposed Construction: "where the dosage is an amount that is sufficient to lessen the amount of particulate material that is collected into a ball, mass or cluster and the amount of particulate material that adheres to surfaces when the particulate material is exposed to a temperature that is less than 0 (deg.)C"

Discussion and Court's Construction: This claim term substantially tracks a term of the '800 Patent construed above and both parties agree that the terms should be construed consistently. Based upon the foregoing discussion, the claim term is construed to mean, "where the dosage is an amount sufficient to prevent the particulate material from freezing into a ball, mass, or cluster or attaching by freezing to any surface when the particulate material and surface are exposed to a temperature that is less than 0 (deg.)C."

3. " *wherein said dosage is substantially lower than the dosage required for deicing or anti-icing* "

Plaintiff's Proposed Construction: "where the dosage would have been insufficient in the specific conditions of its use to remove frozen precipitation from the particulate matter or surface after it has already formed or prevent precipitation from turning into ice by lowering the freezing point of the precipitation which contacts the particulate matter or surface by the application of said composition onto the particulate matter before ice is present"

Defendant's Proposed Construction: "wherein the dosage amount is substantially less than the dosage amount required to convert formed ice into water or prevent the formation of ice when the particulate material is contacted by precipitate water"

Discussion and Court's Construction: The inventors defined "deicing" and "anti-icing" in the specification of the "5 Patent. Defendant's proposed construction incorporates the definitions used by the inventors themselves. Plaintiff's proposed construction is taken from the specification, as well; however, it is taken from the "Background" section describing how the terms were defined in the prior art. Defendant's proposal will be adopted.

Plaintiff also proposes substitution of the words "insufficient in the specific conditions of its use" for "substantially lower." The words "substantially lower" are not ambiguous and require no construction.

The claim is construed to mean, "where the dosage is substantially lower than the dosage required to convert formed ice into water or prevent the formation of ice when the particulate material is contacted by precipitate water."

4. " *wherein the glycerin-containing by-product consists of glycerin, methyl esters, methanol inorganic salts, soaps, free fatty acids, water and other impurities* "

Plaintiff's Proposed Construction: "where the glycerin-containing by-product includes only glycerin, methyl esters, methanol, inorganic salts, soaps, free fatty acids, water and other impurities resulting from the biodiesel manufacturing process and no other constituents"

Defendant's Proposed Construction: "where the glycerin-containing by-product includes only glycerin, methyl esters, methanol, inorganic salts, soaps, free fatty acids, water and other impurities"

Discussion and Court's Construction: As discussed above, the parties agree that the term "consists of" "closes" the claim to other constituents. However, they disagree on the best way to convey this to the jury. Plaintiff's proposed construction more specifically defines the "other impurities" that might be found in the by-product-those that would normally occur or be associated with the biodiesel manufacturing process. This process is specified in Claims 2, 11 and 20 of the "5 Patent. The disputed claim term is found only in claims that depend from Claims 2, 11 and 20. Plaintiff's proposed construction will thus be adopted.

5. " *wherein the diluted composition has a freezing point of at least about -36 (deg.)C* "

Plaintiff's Proposed Construction: "where the diluted product will not show coexistence of liquid and solid at temperatures above -36 (deg.)C (-32.8 (deg.)F)"

Defendant's Proposed Construction: "the diluted composition will not begin freezing until at least about -35 (deg.)C"

Discussion and Court's Construction: Defendant states that there is a typographical error in the claim. Defendant has requested a Certificate of Correction from the PTO. Plaintiff concedes that the error is typographical only and does not challenge the Court's authority to correct the error. Thus, the Court will correct the error. Otherwise, the Court finds that the claim term needs no construction. The Court accordingly construes the term to mean, "where the diluted composition has a freezing point of at least about -35 (deg.)C."

6. " *wherein said dosage is an amount effective to wet the surface of the material and substantially prevent the generation of dust from the particulate material* "

Plaintiff's Proposed Construction: "where the dosage has the result that the dust generated from the larger particulate material by the disturbing, handling or processing of the larger-sized particulate matter is not capable of causing any significant health, environmental or safety problems, such as, but not limited to, dust clouds or dust inhalation adverse effects"

Defendant's Proposed Construction: "wherein the dosage is an amount of the dilute product to sufficiently wet the surface of the material and to substantially lessen the generation of dust from the particulate material"

Discussion and Court's Construction: This claim term is substantially similar to one found in the claims of the '800 Patent. As discussed above, the term needs no construction.

7. " *wherein the diluted composition has a freezing point of at least about -35 (deg.)C* "

Plaintiff's Proposed Construction: "the diluted product will not show coexistence of liquid and solid at temperatures above -35 (deg.)C (-31 (deg.)F)"

Defendant's Proposed Construction: "the diluted composition will not begin freezing until at least about -35 (deg.)C"

Discussion and Court's Construction: As with the corresponding claim term from the '800 Patent discussed above, this claim term needs no construction.

8. " *wherein said dosage is an amount effective to wet the surface of the dirt road and substantially prevent the generation of dust from the dirt road* "

Plaintiff's Proposed Construction: "where the dosage has the result that the dust generated from the dirt road is not capable of causing any significant health, environmental or safety problems, such as, but not limited to, dust clouds or dust inhalation adverse effects"

Defendant's Proposed Construction: "wherein the dosage is an amount of the dilute product that is sufficient to wet the surface of the material and to substantially lessen the generation of dust from the dirt road"

Discussion and Court's Construction: This claim term is no different from claim term # 6, construed on the previous page, except that it refers to a "dirt road" instead of "particulate material." As a result, this claim term needs no construction.

9. " *wherein the diluted composition has a freezing point of at least about -3 (deg.)C* "

Plaintiff's Proposed Construction: "the diluted product will not show coexistence of liquid and solid at temperatures above -3 (deg.)C (26.6 (deg.)F)"

Defendant's Proposed Construction: "the diluted composition will not begin freezing until at least about -35 (deg.)C" FN2

Discussion and Court's Construction: Defendant states that this claim term contains a typographical error and plaintiff agrees. The term is construed to mean, "where the diluted composition has a freezing point of at least about -35 (deg.)C."

CONCLUSION

For the foregoing reasons, the Court construes the disputed claim terms as follows:

The term "wherein the freezing point of said concentrated product is at least about -35 (deg.)C" requires no construction.

The term "an amount of the dilute product effective to suppress agglomeration of the particulate material and its adhesion to surfaces" is construed to mean "an amount of the dilute product effective to prevent the particulate material from freezing into a ball, mass, or cluster or attaching by freezing to any surface when the particulate material and surface are exposed to a temperature that is less than 0 (deg.) C."

The term "an amount of the dilute product effective to wet the surface of the material and substantially prevent the generation of dust from the particulate material" needs no construction.

The term "a composition consisting of a glycerin-containing by-product formed from a manufacturing process for making fatty acid esters from at least one oil selected from the group consisting of vegetable oil and animal fats" is construed to mean "a composition containing only a glycerin-containing by-product and the impurities normally found in such a by-product where the by-product is formed from a manufacturing process for making fatty acid esters from vegetable oil and/or animal fats and no other constituents."

The term "wherein said dosage is an amount sufficient to suppress agglomeration of the particulate material and its adhesion to surfaces upon exposure of the particulate material to said subfreezing temperatures" is construed to mean "where the dosage is an amount sufficient to prevent the particulate material from freezing into a ball, mass, or cluster or attaching by freezing to any surface when the particulate material and surface are exposed to a temperature that is less than 0 (deg.)C."

The term "wherein said dosage is substantially lower than the dosage required for deicing or anti-icing" is construed to mean "where the dosage is substantially lower than the dosage required to convert formed ice into water or prevent the formation of ice when the particulate material is contacted by precipitate water."

The term "wherein the glycerin-containing by-product consists of glycerin, methyl esters, methanol, inorganic salts, soaps, free fatty acids, water and other impurities" is construed to mean "where the glycerin-containing by-product includes only glycerin, methyl esters, methanol, inorganic salts, soaps, free fatty acids, water and other impurities resulting from the biodiesel manufacturing process and no other constituents."

The term "wherein the diluted composition has a freezing point of at least about -36 (deg.)C" is construed to mean "where the diluted composition has a freezing point of at least about -35 (deg.)C"

The term "wherein said dosage is an amount effective to wet the surface of the material and substantially prevent the generation of dust from the particulate material" needs no construction.

The term "wherein the diluted composition has a freezing point of at least about -35 (deg.)C" needs no construction.

The term "wherein said dosage is an amount effective to wet the surface of the dirt road and substantially prevent the generation of dust from the dirt road" needs no construction.

The term "wherein the diluted composition has a freezing point of at least about -3 (deg.)C" is construed to mean "where the diluted composition has a freezing point of at least about -35 (deg.)C."

IT IS SO ORDERED.

FN1. The parties agree that the term "glycerin" as used in both the ' 800 and "5 Patents means "glycerin, glycerine, glycerol or 1, 2, 3,-propanetriol."

FN2. Again, defendant has requested a Certificate of Correction to fix the apparent typographical error.

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