

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

NANOCHEM SOLUTIONS, INC.,)	
)	
Plaintiff,)	
)	
v.)	No. 10 C 5686
)	
GLOBAL GREEN PRODUCTS, LLC,)	
LARRY P. KOSKAN, and LEBOND)	
CHEMICALS, INC.,)	
)	
Defendants,)	
)	
)	
GLOBAL GREEN PRODUCTS, LLC,)	
)	
Counter Plaintiff,)	
)	
v.)	
)	
NANOCHEM SOLUTIONS, INC.,)	
)	
Counter Defendant.)	

OPINION AND ORDER

Plaintiff NanoChem Solutions, Inc. ("NC") brings this action against defendants Global Green Products, LLC ("GGP"), Larry P. Koskan, and Lebond Chemicals, Inc. for patent infringement arising under 35 U.S.C. § 271; violations of the Lanham Act, 15 U. S. C. § 1125; and violations of Illinois law. Lebond

Chemicals, Inc., named in Counts VIII through XII of the Second Amended Complaint, has not been served with process and will be dismissed. GGP's and Koskan's previous motion for summary judgment on Counts III and IV of the Second Amended Complaint was denied. *See NanoChem Solutions, Inc. v. Global Green Products, LLC*, 2012 WL 5048064 (N.D. Ill. Oct. 16, 2012) [Docket Entry 163].

The patents in suit were originally owned by Donlar Corporation ("Donlar"). Koskan, one of the inventors, was the president of Donlar. Donlar filed a petition for protection of creditors pursuant to Chapter 11 of the United States Bankruptcy Code. On June 2, 2004, Koskan executed an assignment which conveyed the title and interest in the patents in suit to NC. Prior to the end of 2004, Koskan formed GGP. GGP is in the business of selling products for industrial water treatment and agricultural uses, allegedly in competition with NC.

The case is now before the court for claim construction. The parties represent that a claim construction hearing is not necessary and that the claim construction issues can be decided on the briefs. The court agrees. The issues will be decided on the briefs without holding a hearing.

Initially, only claims in two of the patents in suit appeared to be in dispute; however, as the briefing continued, claims in a third patent have been disputed. The seven claim terms in dispute are as follows. The italicized language indicates differences in the parties' positions.

Claim Term	GGP Construction	NC Construction
U.S. Patent No. 5,152,902		
"heating powdered L-aspartic acid to at least 370° F. to initiate a condensation reaction" [Claim 2a]	Heating powdered L-aspartic acid to at least 370° F. until condensation of the powdered L-aspartic acid begins, <i>without the use of a chemical catalyst.</i>	Heating powdered L-aspartic acid to at least 370° F. until condensation of the powdered L-aspartic acid begins.
"raising the reaction mixture temperature to at least 420° F." [Claim 7b]	Causing the reaction mixture temperature to be elevated to at least 420° F. <i>without the use of a chemical catalyst.</i>	Causing the reaction mixture temperature to reach at least 420° F.
"maintaining said reaction temperature to at least 420° F. until at least 80% conversion of said L-aspartic acid to polysuccinimide has occurred" [Claim 12c)]	Causing the reaction mixture to remain at a constant temperature of at least 420° F. <i>for four to eight hours without the use of a chemical catalyst</i> until the L-aspartic acid has converted to polysuccinimide.	Causing the reaction mixture to remain at a temperature of at least 420° F. until the L-aspartic acid has converted <i>at least 80%</i> to polysuccinimide.

U.S. Patent No. 5,057,597		
"heating the fluid bed to a temperature of at least about 180°C. (356° F.)" [Claim 1b]	Causing the fluid bed to reach an initial temperature of <i>at least</i> 180° C. (356° F.) <i>without the use of a catalyst.</i>	Causing the fluid bed to reach a temperature of 180° C. (356° F.).
"maintaining the heated bed at a temperature in the range of about 180° C. (356° F.) to about 250° C. (482° F.) for a time period sufficient to polymerize the alpha amino acid . . ." [Claim 1b]	Causing the fluid bed <i>material</i> to remain at a <i>constant</i> temperature of <i>about</i> 180°C. (356°F.) to <i>about</i> 250° C. (482° F.) <i>for a minimum of three hours without the use of a catalyst</i> until the alpha amino has polymerized.	Causing the fluid bed to remain at a temperature of 356-482° F. until the alpha amino has polymerized.
U.S. Patent No. 5,315,010		
"indirectly heated plate drier" [Claim 1a]	<i>The plate drier described in col. 13, lines 30-57 that contains multiple broad, flat pieces of stainless steel forming part of a continuous unit that transfers heat through conduction.</i>	<i>A batch or continuous process heater using conduction heat transfer.</i>
"heating the introduced powdered L-aspartic acid to a temperature of at least 370° F. to initiate a condensation reaction" [Claim 1b]	Heating powdered L-aspartic acid to at least 370° F. until condensation of the powdered L-aspartic acid begins, <i>without the use of a chemical catalyst.</i>	Heating powdered L-aspartic acid to at least 370° F. until condensation of the powdered L-aspartic acid begins.

The claim terms in dispute are stated in dependent Claims 2, 7, and 12 of the '902 patent (Count IV), independent Claim 1 of the '597 patent (Count V), and independent Claim 1 of the '010 patent (Count I). There is no claim construction issue regarding either U.S. Patent No. 5,373,086 (Count II) or U.S. Patent No. 5,593,947 (Count III).

The leading decision on claim construction is *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*). The ordinary and customary meaning of a claim is the meaning it would have to a person of ordinary skill in the art at the time of filing the patent application. *Id.* at 1313. The context of the entire patent including the specification is to be considered. *Id.* The entire prosecution history constitutes the "intrinsic record." *Id.* at 1313-14. This record usually provides the technological context to enable a court to ascertain the meaning of a claim. *Id.* at 1313 (quoting *V-Formation, Inc. v. Benetton Group SpA*, 401 F.3d 1307, 1310 (Fed. Cir. 2005)).

GGP contends that claims in the '902 and '010 patents should be construed as supporting a negative limitation stating "without the use of a catalyst" or "without the use of a chemical catalyst." A chemical catalyst is defined as a

"substance that alters the velocity of a chemical reaction and may be recovered essentially unaltered in form and amount at the end of the reaction." *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 996 (Fed. Cir. 2006) (quoting *McGraw-Hill Dictionary of Scientific & Technical Terms* 307 (4th ed. 1989)).

The patents do not mention any particular catalyst or disclaim the use of a catalyst. To construe the cited claims as containing a negative limitation should not be done without support in the specifications or file history. *See Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012) (specification can support negative claim limitation); *Omega Eng'g v. Raytek Corp.*, 334 F. 3d 1314, 1322-23 (Fed. Cir. 2003) (negative claim limitation cannot be added when there is no support in specification, no express disclaimer, and no independent lexicography in written description). GGP does not point to any patent specification language which supports that any claims should be construed to imply a negative limitation on the use of a catalyst.

Defendants also argue that the existence of catalysts in prior art and none mentioned in the patents in suit implies construing a negative limitation. That argument has been rejected. *See Medichem, S.A. v. Rolabo, S.L.*, 353 F. 3d 928, 933-34 (Fed. Cir. 2003).

GGP construes the language of Claim 12c of the '902 patent to require maintaining a temperature of 420° F. "for four to eight hours without the use of a chemical catalyst ." There is no basis in the patent or in extrinsic evidence to depart from the plain meaning of the claim language of "maintaining said reaction temperature to at least 420° F. until at least 80% conversion of said L-aspartic acid to polysuccinimide has occurred."

The claims of the '902 and the '010 patents do not limit the chemical reaction to a solid phase. Whether a solid phase or a melt phase exists is not a feature of the claims.

The claims of the '597 patent require that the amino acid be maintained as free-flowing, solid particles. A catalyst could be used as long as the particles remain in a free-flowing state. Apparently, whether or not a catalyst causes a melt phase depends on the type of reactor used, the temperature, and the type and amount of a catalyst. Neither the specifications nor extrinsic evidence support construing any of the claims as being performed with or without a catalyst.

GGP construes language in claim 1 of the '597 patent to require a constant temperature of 356-482° F.¹ for a minimum of three hours without the use of a catalyst. The claim, however, asserts "about" this temperature range and "for a time period sufficient to polymerize the alpha amino acid," not any specific amount of hours. The word about has been held to be a broadening term.

Cohesive Techs., Inc. v. Waters Corp., 543 F.3d 1351 1372 (Fed. Cir. 2008).

Proper construction includes the temperature ranges without any reference to a catalyst.

The language "indirectly heated plate drier" in Claim 1 of the '010 Patent is construed by GGP to be the plate drier described in col. 13, lines 30-57 that contains multiple broad, flat pieces of stainless steel forming part of a continuous unit. NC reads the language as describing a batch or continuous process heater. All such heaters require one or more plates through which heat is supplied through conduction. The patent describes several driers. The claim is not reasonably limited to one type of drier as GGP proposes. *See Innova/Pure Water, Inc. v.*

¹Prior contentions used a different temperature range, but GGP apparently concedes that the temperature ranges stated in the patent should be used.

Safari Water Filtration, Sys., Inc., 381 F. 3d 1111, 1121-22 (Fed. Cir. 2004).

Any drier using a conduction heat transfer would fall within the claim.

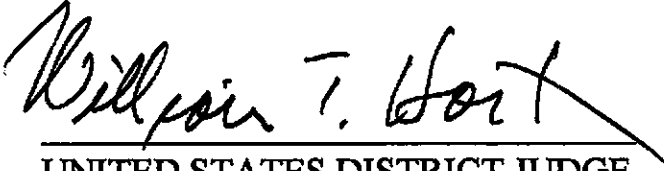
IT IS THEREFORE ORDERED that:

(1) Plaintiff Nanochem Solutions, Inc.'s construction of the disputed Claims in patents '902, '597, and '010 is adopted.

(2) Defendant LeBond Chemicals, LLC and Counts VIII through XII of the Second Amended Complaint are dismissed from this case.

(3) This case is set for a hearing on status on February 21, 2013 at 2:00 p.m.

ENTER:


UNITED STATES DISTRICT JUDGE

DATED: JANUARY 29, 2013