

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

BUTAMAX™ ADVANCED BIOFUELS LLC,)	
)	
Plaintiff,)	
)	C.A. No. _____
v.)	
)	JURY TRIAL DEMANDED
GEVO, INC.)	
)	
Defendant.)	

COMPLAINT

Plaintiff Butamax™ Advanced Biofuels LLC ("Butamax"), by its attorneys, for its Complaint against Defendant Gevo, Inc. ("Gevo"), alleges as follows:

THE PARTIES

1. Butamax is a limited liability company organized and existing under the laws of the state of Delaware, with its principal place of business in Wilmington, Delaware. Butamax has developed methods of making isobutanol, an advanced biofuel that will provide improved options for increasing energy supplies and facilitate the transition to renewable transportation fuels which lower overall greenhouse gas emissions. Isobutanol also can be used as a feedstock chemical in the production of various plastics, fibers and other products.

2. Butamax has developed novel methods useful for producing isobutanol with recombinant microorganisms comprising an engineered isobutanol biosynthetic pathway.

3. On information and belief, Gevo is a corporation organized and existing under the laws of the state of Delaware, with its principal place of business in Englewood, Colorado.

JURISDICTION AND VENUE

4. This action arises under the Declaratory Judgment Act and the Patent Statute of the United States of America, Titles 28 and 35 of the United States Code. This Court has

jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201 and 2202.

5. On information and belief, this Court has personal jurisdiction over Gevo because it is a Delaware corporation with a registered Delaware agent and has purposefully availed itself of the benefits and protections of this state.

6. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

BACKGROUND

7. United States Patent No. 8,273,558 ("the '558 patent") entitled, FERMENTIVE PRODUCTION OF FOUR CARBON ALCOHOLS, duly and legally issued on September 25, 2012 to inventors Gail K. Donaldson, Andrew C. Eliot, Dennis Flint, Lori Ann Maggio-Hall, and Vasantha Nagarajan. The '558 patent is assigned to Butamax. Butamax owns the '558 patent and has owned it since it issued. The '558 patent issued from a continuation-in-part application of the following U.S. patent applications: (a) application No. 11/586,315, now U.S. Patent No. 7,851,188; (b) application No. 12/110,526; and (c) application No. 12/477,942. The '188 patent is involved in a pending litigation between Butamax and Gevo.

8. The '558 patent discloses and claims certain recombinant yeast host cells comprising genes encoding an engineered isobutanol biosynthetic pathway which increases production of isobutanol.¹

9. On information and belief, Gevo makes and uses recombinant yeast host cells that embody the invention of the '558 patent.

¹ The '558 patent issued on September 25, 2012 at 12:00 am EDT, as shown on the September 5, 2012 Issue Notification attached as **Exhibit A**. A paper copy will be filed with the Court as soon as it becomes available.

10. On information and belief, Gevo makes and uses recombinant yeast host cells comprising genes encoding an engineered isobutanol biosynthetic pathway, wherein said isobutanol biosynthetic pathway increases the production of isobutanol as compared to naturally occurring amount of isobutanol made by unmodified yeast and comprises the following substrate to product conversions:

- (a) 2,3-dihydroxy-isovalerate to α -ketoisovalerate;
- (b) the α -ketoisovalerate from (a) to isobutyraldehyde; and
- (c) the isobutyraldehyde from (b) to isobutanol,

wherein

- (i) the substrate to product conversion of step (a) is performed by a recombinantly expressed acetohydroxy acid dehydratase enzyme;
- (ii) the substrate to product conversion of step (b) is performed by a recombinantly expressed α decarboxylase enzyme; and
- (iii) the substrate to product conversion of step (c) is performed by a recombinantly expressed alcohol dehydrogenase enzyme;

wherein the recombinantly expressed enzymes of (i) to (iii) are expressed in the cytosol, and wherein said recombinant yeast host cell is capable of producing isobutanol through the substrate to product conversions of (a) to (c).

11. On information and belief, Gevo's U.S. Patent No. 8,232,089 provides examples of recombinant yeast host cells that Gevo makes and uses.

12. Gevo's U.S. Patent No. 8,232,089 provides examples of recombinant yeast that recombinantly express acetohydroxy acid dehydratase enzyme, decarboxylase enzyme and

alcohol dehydrogenase enzyme in the cytosol. These enzymes perform the substrate to product conversions a-c in paragraph 10. On information and belief Gevo is making and using additional strains of recombinant yeast that express these enzymes in the cytosol and perform the substrate to product conversions. Such strains embody the claims of the '558 patent.

13. Gevo announced to the press that its "scientists realized from the beginning the importance of increasing pathway efficiencies and recognized that to produce commercially relevant levels of isobutanol one must use the technology covered by our patents."

14. On information and belief, Gevo owns an ethanol production facility retrofitted to produce isobutanol commercially using its recombinant yeast that embody the claims of the '558 patent. Such yeast used commercially by Gevo recombinantly expresses the enzymes as identified in paragraph 12 and produces isobutanol through the identified conversions in increased amounts compared to naturally occurring amounts of isobutanol made by unmodified yeast. Gevo also plans to have additional retrofitted ethanol facilities produce commercial quantities of isobutanol using its recombinant yeast.

15. Gevo has entered into contracts with third parties to supply them with isobutanol produced from this facility.

16. Gevo has entered collaborations with third parties for high-volume production of isobutanol at the facilities owned and operated by these third parties. On information and belief, Gevo intends for such third parties to produce isobutanol from yeasts that embody the '558 patent.

17. On information and belief, Gevo has been aware of the application that matured into the '558 patent since at least February 22, 2012.

18. On information and belief, at least Gevo's making and using of such recombinant yeast host cells and/or its inducement of others to make and use such recombinant yeast host cells infringes the '558 patent. Gevo will continue to infringe unless enjoined.

COUNT I - PATENT INFRINGEMENT

19. Each of the preceding paragraphs, 1-18 is incorporated as if fully set forth herein.

20. On information and belief, Gevo directly and/or indirectly infringes and will continue to infringe, either literally or under the doctrine of equivalents, one or more claims of the '558 patent, pursuant to 35 U.S.C. § 271.

21. On information and belief, Gevo's infringement of the '558 patent will continue, unless enjoined by this Court. Gevo's infringement causes harm to Butamax. Thus, there is a real and actual controversy between Butamax and Gevo.

REQUEST FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the following relief:

(a) That a declaratory judgment be entered declaring that Gevo infringes one or more claims of the '558 patent and that Gevo's making and using recombinant yeast host cells comprising genes encoding an engineered isobutanol biosynthetic pathway and/or its inducement of others to make and use recombinant yeast host cells comprising genes encoding an engineered isobutanol biosynthetic pathway are acts of infringement of one or more claims of the '558 patent;

(b) That Gevo and its officers, employees, agents, attorneys, affiliates, successors, assigns and others acting in privity or concert with it be preliminarily and permanently enjoined from making and using recombinant yeast host cells comprising genes encoding an engineered isobutanol biosynthetic pathway or inducing others to produce

recombinant yeast host cells comprising genes encoding an engineered isobutanol biosynthetic pathway.

(c) That judgment be entered awarding Plaintiff damages resulting from Gevo's infringement in an amount no less than a reasonable royalty, and that such amount be multiplied based on Gevo's continuing willful and deliberate infringement, pursuant to 35 U.S.C. § 285;

(d) That this case be deemed exceptional and attorneys' fees be awarded pursuant to 35 U.S.C. § 285;

(e) That interest, costs and expenses be awarded in favor of Butamax;

(f) That this Court order such other and further relief as the Court may deem just and proper.

JURY DEMAND

Butamax hereby demands trial by jury in this action on all issues so triable.

Respectfully submitted,

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