

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TIDE INTERNATIONAL (USA), INC.,  
Petitioner,

v.

UPL NA INC.,  
Patent Owner.

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IPR2020-01113  
Patent 7,473,685 B2

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Before SUSAN L. C. MITCHELL, ZHENYU YANG, and  
MICHAEL A. VALEK, *Administrative Patent Judges*.

VALEK, *Administrative Patent Judge*.

JUDGMENT  
Final Written Decision  
Determining Some Challenged Claims Unpatentable  
35 U.S.C. § 318(a)

## I. INTRODUCTION

Tide International (USA), Inc., (“Petitioner”) filed a Petition (Paper 2, “Pet.”), seeking *inter partes* review of claims 1–4 and 7–12 of U.S. Patent No. 7,473,685 B2 (Ex. 1001, “the ’685 patent”). We instituted trial on all of the grounds in the Petition. Paper 12 (“Institution Dec.”).

Following institution, UPL NA, Inc., (“Patent Owner”) filed a Response (Paper 14, “Resp.”), Petitioner filed a Reply (Paper 21, “Reply”), and Patent Owner filed a Sur-Reply (Paper 23, “Sur-Reply”). We held a hearing on October 27, 2021, and a transcript is of record. Paper 29 (“Tr.”).

We have jurisdiction pursuant to 35 U.S.C. § 6. This Decision is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Petitioner bears the burden of proving unpatentability of the challenged claims by a preponderance of the evidence. *See* 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d) (2019).

Upon consideration of the full record, and for the reasons explained below, we find Petitioner has shown by a preponderance of the evidence that claims 1–4 are unpatentable, but has not shown by a preponderance of the evidence that claims 7–12 are unpatentable on the grounds in the Petition.

## II. BACKGROUND

### A. *Real Parties in Interest*

Petitioner identifies itself, “Tide International (USA), Inc.,” as well as “Zhejiang Tide Cropscience Co. Ltd., Ningbo Tide Imp. & Exp. Co., Ltd., and Tide International Company Limited” as the real parties-in-interest. Pet. 73. Petitioner explains that Tide International Company Limited is its parent corporation and that “the remaining parties are defendants in

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co-pending litigation.” *Id.* Patent Owner identifies itself, “UPL NA Inc.,” as the real party-in-interest. Paper 3, 1.

### *B. Related Matter*

Petitioner and Patent Owner identify the following related matter involving the '685 patent: *UPL NA Inc. v. Tide International (USA), Inc.*, No: 8:19-cv-1201-RSWL-KS (C.D. Cal. 2019) (“the related litigation”).

### *C. The '685 Patent*

The '685 patent was issued on January 6, 2009, and claims priority to a utility application filed on April 22, 2002, and a provisional application filed December 18, 2001. Ex. 1001, codes (45), (63), (60).

The '685 patent relates to “[d]ry flow, low compact, dust free, soluble granules” containing the pesticide “acephate” in combination with other ingredients, and processes for making such. Ex. 1001, Abstr. According to the Specification, “[t]he formulation of acephate presently in use . . . poses the problems of dust, low pourability, high transportation costs, high capital manufacturing investment, measurement difficulties, difficulties in packing material disposal, handling problems, high risk of caking and others.” *Id.* at 2:13–20.

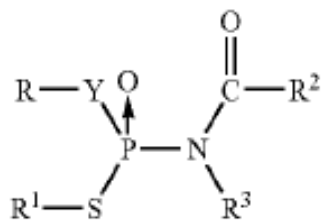
The Specification purports to overcome these problems by describing a method that constitutes “an improvement over prior manufacturing processes” that produces granules that are “more advantageous than prior granular products and exhibit[] certain very desirable characteristics.” Ex. 1001, 2:33–43.

The claims of the '685 patent recite particular formulations of granule compositions "consisting of" acephate and certain recited ingredients in amounts falling within specified ranges. Ex. 1001, 7:44–8:65.

#### *D. Challenged Claims*

The Petition challenges claims 1–4 and 7–12. Of these, claims 1 and 7 are independent. Claim 1 reads as follows:

1. A chemically stable dry flow, low compact, dust free soluble phosphoramidothioate granule consisting of
  - (i) 85-98% w/w an insecticidally active compound of the following formula:



wherein R and R<sup>1</sup> individually are alkyl, alkynyl or alkenyl group containing up to 6 carbon atoms, R<sup>2</sup> is hydrogen, an alkyl group containing 1 to 18 carbon atoms, a cycloalkyl group containing 3 to 8 carbon atoms, an alkenyl group containing 2 to 18 carbon atoms or an alkynyl group containing 3 to 18 carbon atoms, R<sup>3</sup> is hydrogen or an alkyl group containing 1 to 6 carbon atoms, and Y is oxygen or sulfur, wherein said insecticidal active compound is Acephate:

- (ii) 0.1-5.0% w/w a dispersing agent;
  - (iii) 0.1-3% w/w a wetting agent;
  - (iv) 0.01-0.08% w/w an antifoaming agent;
  - (v) 0.01-1% w/w a stabilizer and
  - (vi) fillers to make 100%,
- wherein said granule has a length of 1.5-3.0 mm and a diameter of 0.5-1.5 mm.

Ex. 1001, 7:44–8:4. Claim 7 is directed to a granule with the same dimensions, ingredients, and ranges as claim 1 and that additionally consists

of a “binding agent” and a “disintegrating agent” within specified ranges.  
*See id.* at 8:19–48.

### *E. Instituted Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability:

Claims Challenged	35 U.S.C. §	References
1–4, 7–12	103(a) <sup>1</sup>	Misselbrook, <sup>2</sup> CN ’588, <sup>3</sup> JP ’902, <sup>4</sup>
1–4, 7–12	103(a)	Misselbrook, Mayer, <sup>5</sup> CN ’588
1–4, 7–12	103(a)	Misselbrook, JP ’902, Mayer

Petitioner relies on the declaration of William Geigle (Ex. 1003) in support of these grounds. Patent Owner relies on the declaration of David A. Rockstraw, Ph.D., P.E. (Ex. 2007), which was submitted with its Response.

## III. ANALYSIS OF ASSERTED GROUNDS

### *A. Legal Standards*

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is

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<sup>1</sup> The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), included revisions to 35 U.S.C. §§ 102 and 103 that became effective after the filing of the application that led to the ’685 Patent.

Therefore, we apply the pre-AIA versions of 35 U.S.C. §§ 102 and 103.

<sup>2</sup> U.S. Patent No. 6,387,388 B1, issued May 14, 2002 (Ex. 1005) (“Misselbrook”).

<sup>3</sup> CN 1127588A, published July 31, 1996 (Ex. 1006). Petitioner has provided a certified translation (Ex. 1007), which we refer to and cite herein as “CN ’588.”

<sup>4</sup> JP 9-315902, published Dec. 9, 1997 (Ex. 1008). Petitioner has provided a certified translation (Ex. 1009), which we refer to and cite herein as “JP ’902.”

<sup>5</sup> U.S. Patent No. 6,030,924, issued Feb. 29, 2000 (Ex. 1010) (“Mayer”).

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