

Industria y Comercio
SUPERINTENDENCIA

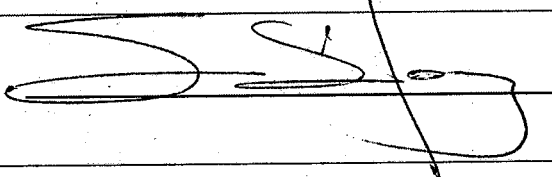
SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 14-010916- -00002-0000

Fecha: 2014-08-06 16:06:50 Dep. 2020 DIR.NUEVASCR
Tra. 11 PATENTEIYII Eve: 378 FASENACIONALI
Act. 457 PROCEDIPPH Folios: 69

DIRECCIÓN DE NUEVAS CREACIONES
Procedimiento acelerado de exámenes de patente (PPH)

1	NÚMERO DE SOLICITUD ANTE LA SIC	14010916
2	OFICINA DE PRIMERA PRESENTACIÓN (OPP)	ESTADOS UNIDOS DE AMERICA
3	NÚMERO(S) DE SOLICITUD O PUBLICACIÓN DE LA(S) SOLICITUD(ES) (OPP):	1. 13/184,086 2. 3.
4	☐ REPRESENTANTE LEGAL ☐ APODERADO	
APELLIDOS LOPEZ DÍAZ		NOMBRES SILVANA MARIA
		IDENTIFICACIÓN c.c. 22.468.787 T.P. 147463 CSJ
DIRECCIÓN	Carrera 11 No. 86-53 Piso 6	No. TELÉFONO 6181088
CIUDAD	Bogotá	CORREO ELECTRÓNICO notificaciones@clar kemodet.com.co
PAÍS	COLOMBIA	No. RADICACIÓN O PROTOCOLO DE PODER GENERAL
5	CONDICIONES PARA ACCEDER A ESTE PROCESO:	
5.1.	DATOS DE PRIORIDAD ☐ SI ☐ NO	
(33) PAÍS DE ORIGEN 1. US 2. 3.		(31) NÚMERO 13/184.086
		(32) FECHA (AAAA/MM/DD) 2011/07/15
5.2.	DATOS SOLICITUD INTERNACIONAL PCT ☐ SI ☐ NO	
Solicitud Internacional No. PCT/US2012/044526		Fecha 28/06/2012
Publicación Internacional No. WO 2013/012533		Fecha 24/01/2013
El solicitante presenta una copia de la(s) reivindicación(es) patentable(s) u otorgable(s) de la solicitud de la Oficina de Primera Presentación que profirió el examen de patentabilidad, junto con una traducción al castellano. ☐ SI ☐ NO		
REQUISITOS PARA EL RECONOCIMIENTO DE LOS RESULTADOS DE EXÁMENES DE PATENTABILIDAD EFECTUADOS A SOLICITUDES EXTRANJERAS		
Para que la Superintendencia de Industria y Comercio pueda reconocer los resultados de exámenes de patentabilidad producidos por otras Oficinas de Propiedad Industrial se debe cumplir con las siguientes condiciones:		
(a) Al momento de solicitar el examen de patentabilidad, si el solicitante pide que se reconozcan exámenes de patentabilidad de otras oficinas extranjeras, deberá aportar junto con el pago de la tasa correspondiente, los siguientes anexos:		
(i) Copia de las resoluciones, fallos o decisiones que han sido relevantes para la determinación de la patentabilidad de la(s) solicitud(es) en la Oficina que haya proferido el examen de patentabilidad que contienen reivindicaciones patentables u otorgables que son la base de la petición, y si es del caso, su traducción al castellano. ☐ SI ☐ NO		
(ii) Copia de todas las reivindicaciones determinadas como patentables u otorgables en la Oficina que profirió el examen de patentabilidad y, si es del caso, su traducción al castellano. ☐ SI ☐ NO		
(iii) Copia de los antecedentes, información o documentos citados por el examinador de la Oficina de Primera Presentación del examen de patentabilidad, en las resoluciones, fallos o decisiones correspondientes, incluyendo la literatura no patente. Los documentos de patente deberán presentarse siempre y cuando no estén disponibles para la Superintendencia de Industria y Comercio mediante el simple acceso a bases de datos gratuitas. ☐ SI ☐ NO		
(iv) Una tabla de correspondencias de las reivindicaciones que han sido determinadas como patentables u otorgables en la solicitud de la Oficina que haya proferido el examen de patentabilidad.		
7	FIRMA DEL SOLICITANTE, DEL APODERADO O DEL REPRESENTANTE LEGAL Junto a cada firma, indicar el nombre del firmante y su calidad (si tal calidad no es obvia al leer el petitorio)	
		



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

24113 7590 05/22/2014
PATTERSON THUENTE PEDERSEN, P.A.
4800 IDS CENTER
80 SOUTH 8TH STREET
MINNEAPOLIS, MN 55402-2100

EXAMINER	
SAYALA, CHHAYA D	
ART UNIT	PAPER NUMBER
1791	

DATE MAILED: 05/22/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/184,086	07/15/2011	Matthew T. Kane	3595.479US04	9645

TITLE OF INVENTION: GRANULATED PHOSPHATE PRODUCT CONTAINING ABRASIVITY AND LUBRICITY ADDITIVES

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	08/22/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or **Fax** (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

24113 7590 05/22/2014
PATTERSON THUENTE PEDERSEN, P.A.
4800 IDS CENTER
80 SOUTH 8TH STREET
MINNEAPOLIS, MN 55402-2100

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/184,086	07/15/2011	Matthew T. Kane	3595.479US04	9645

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APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	08/22/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
SAYALA, CHHAYA D	1791	426-074000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.	2. For printing on the patent front page, list (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 1 _____ 2 _____ 3 _____
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3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted: ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies _____	4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).
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5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/184,086	07/15/2011	Matthew T. Kane	3595.479US04	9645
24113 7590 05/22/2014 PATTERSON THUENTE PEDERSEN, P.A. 4800 IDS CENTER 80 SOUTH 8TH STREET MINNEAPOLIS, MN 55402-2100			EXAMINER SAYALA, CHHAYA D	
			ART UNIT 1791	PAPER NUMBER

DATE MAILED: 05/22/2014

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

X

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 13/184,086	Applicant(s) KANE ET AL.	
	Examiner C. Sayala	Art Unit 1791	AIA (First Inventor to File) Status No

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address–

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/1/2014.
☐ A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1,3-7 and 9-13, 16-20. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:
a) ☐ All b) ☐ Some *c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892) 2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>1/29/2014;12/19/2013</u> 3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material 4. ☒ Interview Summary (PTO-413), Paper No./Mail Date <u>5/1/2014</u> .	5. ☒ Examiner's Amendment/Comment 6. ☒ Examiner's Statement of Reasons for Allowance 7. ☐ Other _____.
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/C. Sayala/ Primary Examiner, Art Unit 1791	
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b

Application/Control Number: 13/184,086
Art Unit: 1791

Page 2

The present application is being examined under the pre-AIA first to invent provisions.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms Burgess on 5/1/2014.

In the claims:

In claim 1, line 3, deleted "mono-dicalcium phosphate or".

In claim 7, line 3, deleted "mono-dicalcium phosphate or".

In claim 10, lines 3-4, deleted "is adapted to generate" and substituted therefor
- -forms- -.

In claim 13, line 4, deleted "mono-dicalcium phosphate or".

In claim 13, line 9, deleted "adapted to generate" and substituted therefor
- - -that forms- -.

In the specification:

At page 1, line 2 of paragraph one, after "13/078,557", inserted - -, now U.S.

Patent 8012519- -.

X

Terminal Disclaimer

The terminal disclaimer filed on 5/1/2014 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 8012519 has been reviewed and is accepted. The terminal disclaimer has been recorded.

REASONS FOR ALLOWANCE

The claims have been found allowable based on the now amended claims to a composition comprising a combination of monocalcium phosphate and dicalcium phosphate, an abrasive and a sodium compound selected from sodium carbonate, sodium hydroxide, monosodium phosphate, and combinations thereof. Prior art of record does not teach or fairly suggest such a composition.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Sayala whose telephone number is (571) 272-1405. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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Application/Control Number: 13/184,086

Page 4

Art Unit: 1791

applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/C. SAYALA/
Primary Examiner, Art Unit 1791**

Examiner-Initiated Interview Summary	Application No.	Applicant(s)	
	13/184,086	KANE ET AL.	
	Examiner	Art Unit	
	C. Sayala	1791	

All participants (applicant, applicant's representative, PTO personnel):

(1) C. Sayala (3) _____

(2) Ms Burgess (4) _____

Date of Interview: 01 May 2014.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: _____

Issues Discussed ☐101 ☒112 ☐102 ☐103 ☒Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1,3-7 and 9-13.

Identification of prior art discussed: N/A.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Applicant authorized changes to the claims as depicted in the Examiner's amendment so as to clarify the claims under 35 USC 112, first and second paragraphs. Applicant was also requested to file an acceptable terminal disclaimer..

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/C. Sayala/ Primary Examiner, Art Unit 1791	
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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Attorney Docket No.: 3595.479US04

Kane et al.

Confirmation No.: 9645

Application No.: 13/184,086

Examiner: Chhaya D. Sayala

Filed: July 15, 2011

Group Art Unit: 1791

For: GRANULATED PHOSPHATE PRODUCT CONTAINING ABRASIVITY AND
LUBRICITY ADDITIVES

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

INTRODUCTORY COMMENTS

In response to the Office Action of October 30, 2013, and in accordance with the automatic extension of time for response provided by 37 CFR § 1.136(a), amendment to the above-identified patent application is requested.

The present amendment comprises the following sections:

A. Amendments to the Claims

B. Remarks

Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 16-0631.

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AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remain(s) under examination in the application is presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or fewer characters; and 2. added matter is shown by underlining.

(G) The existence of working examples.

MPEP § 2064.03 recites that “[w]hen considering the factors relating to a determination of non-enablement, if all the other factors point toward enablement, then the absence of working examples will not by itself render the invention non-enabled... A single working example in the specification for a claimed invention is enough to preclude a rejection which states that nothing is enabled since at least that embodiment would be enabled.” The Office Action asserts that “[t]here are no working example to establish the usefulness of any of the additives that the terms would include...” Insofar as the usefulness of the granulated phosphate feed ingredient composition of the present application involves reducing the need for a separate die cleaning step (e.g., see page 7, lines 12-19, of the present application), Applicants point to pages 10-18, especially Tables 1-5, wherein several working examples of the granulated phosphate feed ingredient composition are provided.

(H) The quality of experimentation needed to make and use the invention based on the content of the disclosure.

MPEP § 2064.01 recites that “[t]he fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation.” *In re Certain Limited-Charge Cell Culture Microcarriers*, 221 USPQ 1165, 1174 (Int’l Trade Comm’n 1983), *aff’d. sub nom., Massachusetts Institute of Technology v. A.B. Fortia*, 774 F.2d 1104, 227 USPQ 428 (Fed. Cir. 1985). Applicants assert that the recitation of a “granulated phosphate feed ingredient composition for using in pelleted animal feed, the composition comprising: a

1. (Currently Amended) A granulated phosphate feed ingredient composition for use as a feed ingredient in pelleted animal feed, the composition comprising:

a phosphate source comprising mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate;

a ~~sodium~~ lubricity additive comprising a sodium compound present in an amount that provides a sodium content of about one to about ten percent by weight of the composition; and
an abrasive additive.

2. (Cancelled)

3. (Currently Amended) The granulated phosphate feed ingredient composition of claim 1, wherein the sodium ~~additive~~ compound is chosen from sodium carbonate, sodium hydroxide, monosodium phosphate, ~~potash~~, and combinations thereof.

4. (Original) The granulated phosphate feed ingredient composition of claim 1, wherein the granulated phosphate feed ingredient comprises a phosphorous content of at least about eighteen percent by weight of the composition.

5. (Original) The granulated phosphate feed ingredient composition of claim 1, wherein the sodium content comprises from about three to about five percent by weight of the composition.

6. (Original) The granulated phosphate feed ingredient composition of claim 1, wherein the abrasive additive comprises silica in an amount of about one to about ten percent by weight of the composition.

7. (Currently Amended) A granulated phosphate feed ingredient composition for use as a feed ingredient in pelleted animal feed, the composition comprising:

a phosphate source comprising mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate; and

an abrasive additive in an amount of about one to about ten percent by weight of the composition.

8. (Cancelled)

9. (Original) The granulated phosphate feed ingredient composition of claim 7, wherein the abrasive additive comprises silica.

10. (Currently Amended) The granulated phosphate feed ingredient composition of claim 7, further comprising a sodium additive, wherein the sodium additive provides a sodium content of about one to about ten percent by weight of the composition, and wherein the sodium additive is adapted to generate sodium phosphate during pelleting.

11. (Currently Amended) The granulated phosphate feed ingredient composition of claim 10, wherein the sodium additive is chosen from sodium carbonate, sodium hydroxide, monosodium phosphate, ~~potash~~, and combinations thereof.

12. (Original) The granulated phosphate feed ingredient composition of claim 7, wherein the granulated phosphate feed ingredient comprises a phosphorous content of at least about eighteen percent by weight of the composition.

13. (Currently Amended) A granulated phosphate composition for use as a feed ingredient in animal feed, wherein the animal feed is pelleted via a pellet mill, the granulated phosphate composition comprising:

a phosphate source comprising mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate;

an abrasive additive, the abrasive additive adapted to scour a die of the pellet mill during pelleting; and

a lubricity additive, wherein the lubricity additive comprises a sodium compound ~~[[is]]~~ adapted to generate sodium phosphate to lubricate the die during pelleting.

14-15. (Cancelled).

16. (Currently Amended) The granulated phosphate composition of claim [[15]] 13, wherein the sodium ~~additive~~ compound is chosen from sodium carbonate, sodium hydroxide, monosodium phosphate, ~~potash~~, and combinations thereof.

17. (Currently Amended) The granulated phosphate composition of claim [[15]] 13, wherein the sodium ~~additive~~ compound is present in an amount that provides a sodium content of about one to about ten percent by weight of the composition.

18. (Original) The granulated phosphate composition of claim 13, wherein the abrasive additive comprises silica.

19. (Original) The granulated phosphate composition of claim 13, wherein the abrasive additive is present in an amount of about one to about ten percent by weight of the composition.

20. (Currently Amended) The granulated phosphate composition of claim 13, wherein incorporation of the granulated phosphate composition into animal feed produces an efficiency of the pellet mill that is at least one hundred percent of an efficiency of the pellet mill when milling pelletting the animal feed without incorporated of the granulated phosphate composition.

REMARKS

Claims 1-20 are pending. By this Amendment, claims 2, 8, 14, and 15 are cancelled, claims 1, 3, 7, 10, 11, 13, 16, 17 and 20 are amended and no new claims are added.

Claim Rejections – 35 U.S.C. § 112

Claims 1-20 stand rejected under pre-AIA 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. Specifically, the Office Action asserts that the specification does not reasonably provide enablement for a granulated phosphate feed ingredient as claimed that includes *any* phosphate source, *any* sodium additive and *any* abrasive. (Emphasis in original.) Applicants respectfully traverse the rejection.

MPEP § 2164 recites that the purpose of the enablement requirement is to describe the invention in such terms that one skilled in the art can make and use the claimed invention. However, to comply with the enablement requirement of 35 U.S.C. § 112, first paragraph, it is not necessary to “enable one of ordinary skill in the art to make and use a perfected, commercially viable embodiment absent a claim limitation to that effect.” *CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1338, 68 USPQ2d 1940, 1944 (Fed. Cir. 2003). In other words, detailed procedures for making and using the invention may not be necessary if the description of the invention itself is sufficient to permit those skilled in the art to make and use the invention. As pointed out on page 4 of the Office Action, the “Wands Factors” can be used to make such a determination. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

(A) The breadth of the claims.

Per MPEP § 2164.08, the “relevant concern is whether the scope of enablement provided to one skilled in the art *by the disclosure* is commensurate with the scope of protection sought by the claims.” (Citations omitted; emphasis added). The Office Action asserts that, “...the specification lacks enablement for the entire breadth of these claims which would include any sodium additive such as sodium acetate or sodium chloride or any phosphate source such as organophosphorus compounds or phosphorus sesquioxide or potassium chlorate or any abrasive...[such as]...calcite, emery, diamond dust, corundum, garnet, zirconium, ceramic, glass powder, steel or boron carbide.” (See, page 3.) Applicants respectfully disagree.

A person of ordinary skill would understand that many of these materials would not be compatible with a “granulated phosphate feed ingredient composition” comprising “a phosphate source comprising mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate; a sodium additive...; and an abrasive additive.” For example, a person of ordinary skill would understand that certain sodium additives would not function as the “lubricity additive” recited in newly amended claim 1 because neither would help lubricate the die during pelleting. Furthermore, a person of ordinary skill would understand that certain phosphorous, sodium, and abrasive additives would not be compatible with animal feed because they may be highly toxic or have toxic side effects and/or be economically infeasible to be incorporated into feed compositions.

(B) Nature of the invention.

The Office Action asserts that “[t]he patentability of the feed ingredient would be based on the question of whether all the compounds included by these claims would provide a

sufficiently granulated product.” Office Action, page 4. Applicants disagree. The question is whether the compounds included by the claims would provide a sufficiently granulated *phosphate feed ingredient for use in animal feed*, not a sufficiently granulated product for any use. As discussed above, the scope of enablement provided to one skilled in the art by the disclosure must be commensurate with the scope of protection sought by the claims.

(C) The state of the prior art.

MPEP § 2064.05 recites that “[t]he state of the prior art provides evidence for the degree of predictability in the art and is related to the amount of direction or guidance needed in the specification as filed to meet the enablement requirement.” The Office Action asserts that “[t]he prior art is not so well established that all the compounds included by the terms ‘phosphate source,’ ‘sodium additive,’ and ‘abrasive.’” Applicants assert that the state of the prior art relates to granulated phosphate additives for animal feed, not to the collective state of prior art relating to the individual terms “phosphate source,” “sodium additive,” and “abrasive.” Therefore, in light of the state of the art properly defined, the specification provides proper guidance to one of ordinary skill.

(D) The level of one of ordinary skill.

As pointed out on page 4 of the Office Action, the level of ordinary skill may be depicted by EP Patent Application No. 0175805 to Pentek et al. (“Pentek”), although it is not limited to this reference. Pentek discloses that crude phosphates, such as black and white Moroccan phosphate rock, can be used as the starting point or source of phosphates for use in animal feed.

(See, e.g., paragraphs [0003] and [0010].) Additionally, Pentek discloses that crude phosphates may require processing or digestion before they are suitable for use in animal feed. (See, e.g., paragraphs [0003] through [0006].)

(E) The level of predictability in the art.

MPEP § 2064.03 recites that “[t]he ‘predictability or lack thereof’ in the art refers to the ability of one skilled in the art to extrapolate the disclosed or known results to the claimed invention.” On page 4 of the Office Action, the Examiner takes the position that “[t]here is little predictability in the art in this regard.” Applicants respectfully disagree and contend that in light of the specification, there are a limited number of granulated phosphate compositions comprising a lubricity additive and abrasive additive suitable for use as a feed ingredient in animal feed.

(F) The amount of direction provided by the inventor.

The Office Action asserts that “[t]he inventor has provided no guidance as to the *usefulness* of all the compounds that would be encompassed by these claims.” (emphasis added). Applicants disagree. As asserted above, there are a more limited number of granulated phosphate compositions comprising a lubricity additive and abrasive additive suitable for use as a feed ingredient than what is being asserted by the Examiner. Furthermore, with regard to usefulness, Applicants point to page 7, lines 12-19, of the present application, which discloses that “[p]roduct buildup can be reduced by increasing the lubricity of the meal or mash, and/or by increasing the abrasivity of the meal or mash such that the die is cleaned or scoured during use, *thereby reducing or eliminating the need for a separate die cleaning step*” (emphasis added).

phosphate source...; a lubricity additive...; and an abrasive additive” in newly amended independent claims 1 and 7, and similarly in claim 13, is fully enabled by the specification, such that one of ordinary skill could make and use the subject matter of the claim without undue experimentation. In particular, due to the restrictions as to what can be used safely in feed ingredients, there are a finite number of selections for phosphate sources, lubricity additives, and abrasive additives that are safe for consumption by animals such that undue experimentation is not needed.

Specifically, the present application discloses that the “phosphate source” of newly amended claim 1 may comprise mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate, which can be obtained without undue experimentation. Furthermore, the present application discloses that the “lubricity additive” of newly amended claim 1 may include, for example, “a sodium additive, such as sodium carbonate or soda ash, sodium hydroxide or caustic soda, monosodium phosphate, or combinations thereof,” which helps to lubricate the die during pelleting by generating sodium phosphate. (See, page 7, lines 18-20; page 8, line 1.) Therefore, one of ordinary skill in the art would recognize which sodium additives would achieve this purpose without undue experimentation. Finally, the present application discloses that “the abrasive additive” of newly amended claim 1 may include, for example, silica sand, diatomite (diatomaceous earth), or combinations thereof,” which can have a scouring effect that helps keep the die clean during milling while being safe for animal consumption. (See, page 8, lines 6-14.) As such, the present application fully enables one of ordinary skill in the art to make and use a “granulated phosphate feed ingredient composition”

comprising "a phosphate source; a sodium additive...; and an abrasive additive" of newly amended claim 1 without undue experimentation.

Therefore, Applicants respectfully request withdrawal of the pre-AIA § 112, first paragraph, rejections of claims 1-20.

Claims 1-20 also stand rejected under pre-AIA 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Specifically, the Office Action asserts the terms "phosphate source," "sodium additive," and "abrasive" are of indeterminate scope. Applicants respectfully traverse the rejection.

MPEP § 2173.01 recites that the "[b]readth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. § 112, second paragraph." As explained above, one of ordinary skill would understand that the term "phosphate source" recited in newly amended claims 1 and 7 comprise phosphates that are suitable for consumption by animals when used in animal feed, such as, for example, mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate. Furthermore, one of ordinary skill would understand that the "lubricity additive" of newly amended claim 1 can include, for example, a sodium additive or compound, such as sodium carbonate or soda ash, sodium hydroxide or caustic soda, monosodium phosphate, or combinations thereof, which help to lubricate the die during pelleting

by generating sodium phosphate, while being suitable for animal consumption. (See, page 7, lines 18-20; page 8, line 1.) Finally, one of ordinary skill would understand that “the abrasive additive” of newly amended claim 1 can include, for example, silica sand, diatomite (diatomaceous earth), or combinations thereof, which can have a scouring effect that helps keep the die clean during milling, while being suitable for animal consumption. (See, page 8, lines 6-14.) As such, the terms “phosphate source,” “lubricity additive” (newly amended) and “abrasive” particularly point out and distinctly claim the subject matter of the invention.

With regard to the term “potash” in claim 3, the claim has been amended to remove reference to potash.

With regard to use of the clause “adapted to” in claim 13, per MPEP § 2111.04, “[t]he determination of whether [adapted to] is a limitation in a claim depends on the specific facts of the case.” Furthermore, per MPEP § 2173.05(g), “[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step.” In this particular case, it is a clear that the lubricity additive comprises a sodium compound adapted to generate sodium phosphate to lubricate the die during pelleting.

With regard to the term “lubricity additive” of claim 13, Applicants have amended claim 13 to further clarify that the lubricity additive comprises a “sodium compound” capable of generating sodium phosphate.

With regard to claims 13 and 20, the Examiner takes the position that "the recitation of a pellet mill and the efficiency of such a pellet mill, do not further limit the preamble of these claims rendering the claims indefinite[.]" and points out that the preamble is to a granulated composition. However, as discussed above, per MPEP § 2173.05(g) "[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used." The function of the granulated composition including lubricity and abrasive additives is to provide enhanced benefits to the animal feed while maintaining or increasing pelleting efficiencies.

With regard to claims 4 and 12, the content of phosphorous recited relates to a total percent of phosphorus of the composition from all sources.

Based on the foregoing, Applicants respectfully request withdrawal of the pre-AIA § 112, second paragraph, rejections of claims 1-20.

Claim Rejections – 35 U.S.C. § 102

Claims 1-3, 6-11, and 13-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by EP Patent Application No. 0175805 to Pentek ("Pentek") in light of "Superphosphate," The Great Soviet Encyclopedia, 3rd Edition (1970-1979), to G. A. Cheremisinov ("Cheremisinov"). Insofar as the rejections apply to the newly amended claims, Applicants respectfully traverse the rejection.

MPEP § 2131.03 (III) recites that "[a]nticipation under § 102 can be found only when the reference discloses exactly what is claimed..." *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). Newly amended independent claims 1, 7, and 13 recite, in

pertinent part, "a phosphate source comprising mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate[.]" Pentek is silent with respect to this limitation and instead discloses a process for the production of animal feed from rock phosphates and/or triple superphosphates.

For at least these reasons, Applicants respectfully request reconsideration and withdrawal of the rejections relating to independent claims 1, 7, and 13 and their dependent claims. Additionally, Applicants are not presenting additional arguments with respect to the patentability of the dependent claims, although Applicants do not acquiesce to any of the rejections and reserves the right to raise additional arguments with respect to the patentability of such claims.

Claim Rejections – 35 U.S.C. § 103

Claims 4-5 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pentek in view of U.S. Patent No. 3,189,433 to Hollingsworth et al. ("Hollingsworth") taken with U.S. Patent No. 3,441,511 to Otrhalek et al. ("Otrhalek"). Neither Hollingsworth nor Otrhalek, taken alone or in any combination, remedy the deficiencies of Pentek with respect to independent claims 1 and 7 discussed above (from which claims 4, 5, and 12 depend). Rather, Hollingsworth is directed to the formation of agglomerates of fluorine-containing phosphatic materials suitable for use as defluorination feed material and is cited for its teaching of silica and sodium content. Otrhalek is directed to the manufacture of agglomerates containing an alkali metal hydroxide in substantially homogeneous nodular form and is cited for its teaching of the use of siliceous materials. Applicants respectfully request withdrawal of the § 103 rejections of claims 4, 5 and 12.

Additionally or alternatively, claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over S.U. Patent No. 1740357 to Gumbatov et al. ("Gumbatov") in view of Hollingsworth taken with Otrhalek, and further in view of U.S. Patent 4,101,636 to Larson et al ("Larson"). Insofar as the rejections apply to newly amended independent claims 1, 7, and 13, Applicants respectfully traverse the rejection.

First, Gumbatov is directed to the production of granulated superphosphate with boron additives, and is silent with respect to a phosphate source comprising mono-dicalcium phosphate or a combination of monocalcium phosphate and dicalcium phosphate.

Second, the Examiner takes the position on page 12 that Gumbatov discloses "a granulate that includes superphosphate which inherently contains monocalcium phosphate, silica, and sodium carbonate." (emphasis added). The Examiner also take the position that the concentration ranges of monocalcium phosphate, silica, and sodium carbonate are disclosed in Hollingsworth and Larson, such that the granulated phosphate feed ingredient composition of claims 1-20 is rendered obvious. Applicants assert that the position that superphosphate inherently contains monocalcium phosphate, silica, and sodium carbonate contradicts the disclosure of Cheremisinov above, and therefore, cannot form the basis of an obviousness rejection. Specifically, Cheremisinov discloses that "Superphosphate the most widely used mineral phosphorus fertilizer. The phosphorus in superphosphate is usually in the form of monocalcium phosphate and free phosphoric acid. The fertilizer contains gypsum and other admixtures, such as iron and aluminum phosphates, silica, and fluorine compounds." In other words, superphosphate itself is comprised of monocalcium phosphate and free phosphoric acid, but silica and other "admixture" (i.e., sodium carbonate) are added to the superphosphate to

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form a fertilizer composition. This is similarly evidenced by the disclosure of Pentek that includes the addition of sodium carbonate and silica sand (see claim 1 of Pentek). Therefore, the position that superphosphate inherently contains monocalcium phosphate, silica, and sodium carbonate cannot form the basis of an obviousness rejection.

None of Hollingsworth, Otrhalek, or Larson, taken alone or in any combination, remedies the deficiencies of Gumbatov. As discussed above, Hollingsworth is cited for its teaching of silica and sodium content, and Orthalek is cited for its teaching of the use of siliceous materials. Larson is directed to preparing defluorinated phosphate rock from fluorine-containing phosphate rock for use as animal feed (Abstract) and is cited for its teaching of phosphorous and sodium contents.

Therefore, Applicants respectfully request withdrawal of the § 103 rejections of claims 1-20.

Double Patenting

Claims 1-20 stand provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 8,012,519. Applicants will address the merits of the rejections upon indication of allowable subject matter.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

Application No. 13/184,086

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Daidre L. Burgess", with a long horizontal flourish extending to the right.

Daidre L. Burgess
Registration No. 60389

Customer No. 24113
Patterson Thuent Pedersen, P.A.
4800 IDS Center
80 South 8th Street
Minneapolis, Minnesota 55402-2100
Telephone: 612.252.1558

Search Notes 	Application/Control No. 13/184,086 Examiner C. Sayala	Applicant(s)/Patent under Reexamination KANE ET AL. Art Unit 1791
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SEARCHED			
Class	Subclass	Date	Examiner
426	74	5/1/2014	CS
	807	5/1/2014	CS
	805	5/1/2014	CS

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
426	74	5/1/2014	CS
426	805	5/1/2014	CS
426	807	5/1/2014	CS

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
EAST transcript attached AND parent checked AND inventor name searched	5/1/2014	CS

Receipt date: 01/29/2014

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	13/184,086
				Filing Date	July 15, 2011
				First Named Inventor	Kane et al.
				Art Unit	1791
				Examiner Name	Chhaya D. Sayala
Sheet	1	of	2	Attorney Docket Number	3595.479US04
U.S. PATENT DOCUMENTS					
EXAMINER INITIAL*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	
		Number-Kind Code ² (if known)			
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FOREIGN PATENT DOCUMENTS					
EXAMINER INITIAL*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)			
		JP 2005281732 A	10-13-2005	Mitsubishi.	X Abstract Only
EXAMINER SIGNATURE		/Chhaya Sayala/		DATE CONSIDERED	05/01/2014
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.					

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.S./

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				<i>Complete if Known</i>	
				Application Number	13/184,086
				Filing Date	July 15, 2011
				First Named Inventor	Kane et al.
				Art Unit	1791
Examiner Name				Chhaya D. Sayala	
Sheet	2	of	2	Attorney Docket Number	3595.479US04
NON PATENT LITERATURE DOCUMENTS					
EXAMINER INITIAL*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T ²
		Office Action dated December 26, 2013 for Chinese Application No. 201180005753.6 filed January 18, 2011, 14 pages.			
EXAMINER SIGNATURE		/Chhaya Sayala/		DATE CONSIDERED	05/01/2014
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450. <i>If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.</i>					

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.S./

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	13/184,086
				Filing Date	July 15, 2011
				First Named Inventor	Kane et al.
				Art Unit	1791
				Examiner Name	Chhaya D. Sayala
Sheet	1	of	3	Attorney Docket Number	3595.479US04
U.S. PATENT DOCUMENTS					
EXAMINER INITIAL [*]	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	
		Number-Kind Code ² (if known)			
		US-8,012,519 B2	09-06-2011	Kane et al.	
		US-2011/0177204 A1	07-21-2011	Kane et al.	
		US-2008/0241227 A1	10-02-2008	Franz et al.	
		US-2006/0170128 A1	08-03-2006	Belanger et al.	
		US-2006/0147546 A1	07-06-2006	Ferlin et al.	
		US-2006/0141098 A1	06-29-2006	Persson et al.	
		US-2005/0163911 A1	07-28-2005	McGowen et al.	
		US-2003/0190390 A1	10-09-2003	Moore	
		US-6,113,974	09-05-2000	Winowiski et al.	
		US-5,935,625	08-10-1999	Hjørnevik et al.	
		US-5,643,622	07-01-1997	Sawhill	
		US-5,066,441	11-19-1991	Gerald	
		US-4,994,282	02-19-1991	Miller	
		US-4,873,111	10-10-1989	Aaltonen et al.	
		US-4,180,485	12-25-1979	Llenado	
		US-4,115,307	09-19-1978	McGilvery	
FOREIGN PATENT DOCUMENTS					
EXAMINER INITIAL [*]	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)			
		GB 1,498,285	01-18-1978	Eliasson et al.	
		GB 1,275,280	05-24-1972	Grams et al.	
		EP 0090995	10-12-1983	Cremer	X
		WO 2007/004967	01-11-2007	Nilsson et al.	
		GB 1,070,668	06-01-1967	Abbott Laboratories	
		GB 2332426 A	06-23-1999	Axel et al.	
EXAMINER SIGNATURE		/Chhaya Sayala/		DATE CONSIDERED	05/01/2014
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.					

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.S./

33

Receipt date: 12/19/2013

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	13/184,086
				Filing Date	July 15, 2011
				First Named Inventor	Kane et al.
				Art Unit	1791
				Examiner Name	Chhaya D. Sayala
Sheet	2	of	3	Attorney Docket Number	3595.479US04
U.S. PATENT DOCUMENTS					
EXAMINER INITIAL*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	
		Number-Kind Code ² (if known)			
		US-3,931,416	01-06-1976	Grams	
		US-3,897,575	07-29-1975	White	
		US-3,266,886	08-16-1966	Middleton	
		US-3,134,719	05-26-1964	Sheth et al.	
		US-3,079,260	02-26-1963	Galler	
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FOREIGN PATENT DOCUMENTS					
EXAMINER INITIAL*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)			
		EP 0809941 A1	03-12-1997	Eija	
		GB 2129410 A	05-16-1984	Antonio	
		WO 2006/034098 A1	03-30-2006	Jobe et al.	
		JP 5184309 A	07-27-1993	Rhone Poulenc	X Abstract Only
		CN 1684757A	10-19-2005	Rhone Poulenc	X
		CN 1140555A	01-22-1997	Ajinomoto	X
EXAMINER SIGNATURE		/Chhaya Sayala/		DATE CONSIDERED	05/01/2014
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.					

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.S./

34

Receipt date: 12/19/2013

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	13/184,086
				Filing Date	July 15, 2011
				First Named Inventor	Kane et al.
				Art Unit	1791
				Examiner Name	Chhaya D. Sayala
Sheet	3	of	3	Attorney Docket Number	3595.479US04
NON PATENT LITERATURE DOCUMENTS					
EXAMINER INITIAL*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T ²
		Application and File history for U.S. Patent Application No.: 13/008,640, filed January 18, 2011. Inventors: Matthew T. Kane et al. <i>as available on PAIR at www.uspto.gov.</i>			
		Application and File history for U.S. Patent Application No.: 13/078,557, filed April 1, 2011. Inventors: Matthew T. Kane et al. <i>as available on PAIR at www.uspto.gov.</i>			
		A document entitled "Animal Feeds Granulation", 2010, http://feeco.com/uploads/project-profiles/animal-feeds-granulation.pdf , 1 page			
		Biofos® Product Specification, The Mosaic Company, 12/18/2009, 1 page			
		Multifos® Product Specification, The Mosaic Company, 5/4/2009, 1 page			
		PCT Search Report dated October 20, 2011 for PCT Application No. PCT/US2011/021565 filed January 18, 2011, 8 pages.			
		PCT Search Report dated January 25, 2013 for PCT Application No. PCT/US2012/044526 filed June 28, 2012, 11 pages.			
		Office Action dated March 28, 2013 for Chinese Application No. 201180005753.6 filed January 18, 2011, 19 pages.			X
EXAMINER SIGNATURE		/Chhaya Sayala/		DATE CONSIDERED	05/01/2014
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450. <i>If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.</i>					

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /C.S./

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Issue Classification 	Application/Control No. 13184086	Applicant(s)/Patent Under Reexamination KANE ET AL.
	Examiner CHHAYA SAYALA	Art Unit 1791

CPC					
Symbol				Type	Version
A23K		1	1826	I	2013-01-01
A23K		1	1755	I	2013-01-01
A23K		1	1756	I	2013-01-01
A23K		1	002	F	2013-01-01
A23K		1	1751	I	2013-01-01

CPC Combination Sets				
Symbol	Type	Set	Ranking	Version

NONE		Total Claims Allowed: 16	
(Assistant Examiner)	(Date)		
/CHHAYA SAYALA/ Primary Examiner.Art Unit 1791	05/01/2014	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	NONE

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Attorney Docket No.: 3595.479US04

Kane et al.

Confirmation No.: 9645

Application No.: 13/184,086

Examiner: Chhaya D. Sayala

Filed: July 15, 2011

Group Art Unit: 1791

For: GRANULATED PHOSPHATE PRODUCT CONTAINING ABRASIVITY AND
LUBRICITY ADDITIVES

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR § 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form PTO-1449. It is respectfully requested that the information be expressly considered during the prosecution of the above-referenced application, and be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

The listing of a reference herein is not an admission that the reference is prior art or is material to patentability. 37 CFR § 1.97(h). Applicant reserves the right to establish the patentability of any claimed invention over any of the information provided herewith, and/or prove that this information may not be prior art, and/or prove that this information may not be enabling for any aspect of the information provided herewith.

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Application No. 13/184,086

This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of the first Office Action on the merits, but before the mailing of a Final Action or Notice of Allowance. This Information Disclosure Statement is being filed with a fee pursuant to 37 CFR § 1.97(c)(2). Electronic payment is submitted by credit card to cover the fee. Please credit or debit Deposit Account No. 16-0631 as needed to ensure consideration of the disclosed information.

The Examiner's attention is directed to the applications or patents, if any, to which priority is claimed, as well as to any continuing applications which claim priority to the above-referenced application, and to applications, if any, that may be related by virtue of similar claimed subject matter as the above-referenced application (collectively, the "Related Case(s)"). The Related Case(s), or documents associated with the Related Case(s), are identified on the attached form PTO-1449 by serial number, publication number and/or patent number, along with a copy of the current prosecution history, downloaded from PAIR where available. The current prosecution history for the Related Case(s) is submitted as an NPL document for the convenience of the Examiner.

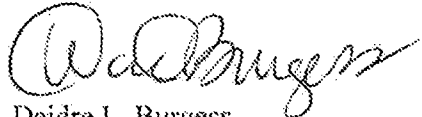
The prosecution history for any and all of these Related Case(s) may include information material to patentability of the above-referenced application including Office Actions, Responses, Office Communications or Notices of Allowance, all of which are readily accessible to the Examiner via PAIR/PALM. To promote consistency and full disclosure during the prosecution of the above-referenced application together with the prosecution of any of the Related Case(s) and to assist the Examiner in complying with the obligations of MPEP 2001.06(b), the Examiner is respectfully requested to review the prosecution history of each of

Application No. 13/184,086

the Related Case(s). This request for review should be considered ongoing throughout the prosecution of the above-referenced application with an updated review via PAIR/PALM of the prosecution histories of any Related Case(s) being made prior to issuance of any Notice of Allowance for the above-referenced application. The identification of any of the Related Case(s) for purposes of this Information Disclosure Statement should not be construed as a waiver of secrecy, if applicable, as to such applications now or upon issuance of the above-referenced application as a patent. For purposes of the Related Case(s), it should be noted that all of the Related Case(s) are published or otherwise publicly available on PAIR.

Please note that copies of the references that were cited by or submitted to the Office in applications which are relied upon for an earlier filing date under 35 U.S.C. § 120 may be found in the appropriate records via PAIR/PALM. 37 CFR § 1.98(d).

Respectfully submitted,



Daidre L. Burgess
Registration No. 60389

Customer No. 24113
Patterson Thunte Pedersen, P.A.
4800 IDS Center
80 South 8th Street
Minneapolis, Minnesota 55402-2100
Telephone: 612.252.1558

Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 16-0631.



UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/184,086	07/15/2011	Matthew T. Kane	3595.479US04	9645
24113 7590 10/30/2013 PATTERSON THUENTE PEDERSEN, P.A. 4800 IDS CENTER 80 SOUTH 8TH STREET MINNEAPOLIS, MN 55402-2100			EXAMINER SAYALA, CHHAYA D	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 10/30/2013	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

40

Office Action Summary	Application No. 13/184,086	Applicant(s) KANE ET AL.	
	Examiner C. Sayala	Art Unit 1791	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
 ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) 1-20 is/are pending in the application.
 5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☒ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10) ☐ The specification is objected to by the Examiner.

11) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some * c) ☐ None of the:

 1. ☐ Certified copies of the priority documents have been received.

 2. ☐ Certified copies of the priority documents have been received in Application No. _____.

 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	4) ☐ Other: _____

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Claim Rejections - 35 USC § 112

The following is a quotation of 35 U.S.C. 112(a):

(a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), first paragraph:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-20 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, because the specification, while being enabling for a granulated phosphate feed that includes calcium phosphate compounds or silica or sodium hydroxide, carbonate or monosodium phosphate, does not reasonably provide enablement for a granulated phosphate feed ingredient as claimed that includes *any* phosphate source, *any* sodium additive and *any* abrasive. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled

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in the pertinent art to make and use the claimed invention. The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? That standard is still the one to be applied. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Accordingly, even though the statute does not use the term "undue experimentation," it has been interpreted to require that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). See also *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) ("The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."). The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976).

Since applicant has claimed a granulated feed ingredient that includes a sodium content and a phosphate source and as abrasive additive, the specification lacks enablement for the entire breadth of these claims which would include any sodium additive such as sodium acetate or sodium chloride or any phosphate source such as organophosphorus compounds or phosphorus sesquioxide or potassium chlorate or any abrasive. Substances that are familiarly known as abrasives are calcite, emery, diamond dust, corundum, garnet, zirconium, ceramic, glass powder, steel or boron carbide. See the reference attached to the PTO-form 892 ('Abrasive').

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement

requirement and whether any necessary experimentation is "undue." These factors include, but are not limited to:

(A) The breadth of the claims;

The claims are drawn to a granulated phosphate feed ingredient which includes any type of phosphorus source or abrasive or sodium additive.

(B) The nature of the invention;

The patentability of the feed ingredient would be based on the question of whether all the compounds included by these claims would provide a sufficiently granulated product.

(C) The state of the prior art;

The prior art is not so well established that all the compounds included by the terms "phosphate source", "sodium additive" and "abrasive".

(D) The level of one of ordinary skill;

The level of skill in the art is depicted by the closest prior art, EP 0175805.

(E) The level of predictability in the art;

There is little predictability in the art in this regard.

(F) The amount of direction provided by the inventor;

The inventor has provided no guidance as to the usefulness of all the compounds that would be encompassed by these claims.

(G) The existence of working examples;

There are no working examples to establish the usefulness of any of the additives that the terms would include, as discussed above.

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

Since the specification disclosure is limited to calcium phosphates, to silica and diatomaceous earth as abrasives, and to sodium carbonate and sodium hydroxide and

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monosodium phosphate as sodium additives, one of ordinary skill in the art (or the competition) would necessarily have to evaluate all the compounds included by these terms as to their function to produce an adequately granulated feed ingredient. Therefore, experimentation would be a prerequisite for practicing the invention.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) (reversing the PTO's determination that claims directed to methods for detection of hepatitis B surface antigens did not satisfy the enablement requirement). In *Wands*, the court noted that there was no disagreement as to the facts, but merely a disagreement as to the interpretation of the data and the conclusion to be made from the facts. *In re Wands*, 858 F.2d at 736-40, 8 USPQ2d at 1403-07. The Court held that the specification was enabling with respect to the claims at issue and found that "there was considerable direction and guidance" in the specification; there was "a high level of skill in the art at the time the application was filed;" and "all of the methods needed to practice the invention were well known." See *In re Wands*, 858 F.2d at 740, 8 USPQ2d at 1406. After considering all the factors related to the enablement issue, the court concluded that "it would not require undue experimentation to obtain antibodies needed to practice the claimed invention." *Id.*, 8 USPQ2d at 1407. A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). The determination that "undue experimentation" would have been needed to make and use the claimed invention is not a single, simple factual determination.

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Rather, it is a conclusion reached by weighing all the above noted factual considerations. *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404.

Based on the instant claims, a review of the specification does not make clear if the entire range of compounds included in the scope of the claims as recited, have been taught as being useful since there is no evidence presented by way of guidance herein that granulated product as envisaged by applicant was in fact, produced for the full scope of the claims.

The following is a quotation of 35 U.S.C. 112(b):

(B) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

The terms "phosphate source", "sodium additive" and "abrasive" are of indeterminate scope. It is not clear what is encompassed by these claims. "The aim, the end, the purpose of the claim is to point out particularly and distinctly define the invention to be secured to the individual. The claim is the measure of the patent..." (emphasis in original) In *Ex parte Holt*, 1884 Dec Comm'r Pat. 43, 62-63 (Comm'r Pat.

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Art Unit: 1791

1884). The claims herein do not fulfil this purpose. See also *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971). Moreover, since a patentee has the right to exclude others from making, using and selling the invention covered by the patent (35 USC 154), a purpose of the second paragraph of 35 USC 112 is to allow the public to know what the patent covers, so that those who endeavour, in future enterprise, to approach the area circumscribed by the patent claims are provided with adequate notice demanded by due process of law, so that they more readily and accurately determine boundaries of protection involved and evaluate the possibility of infringement and dominance. *In re Hammack*, 427 F.2d 1384, 166 USPQ 204 (CCPA 1970).

In claim 3, the sodium additive is selected from 'potash' which is a potassium salt. Applicant should provide some description of how this is achieved because commonsense will dictate that this is impossible.

In claim 13, "adapted to" is indefinite and is open to interpretation. Additionally, these claims are to a composition which therefore, would be drawn to a recitation of elements that would define the composition. Therefore, if a compound is being "adapted", such a term should clearly state what it is 'adapted' to in order to generate sodium phosphate.

In claim 13, "lubricity additive" does not define the metes and bounds of this claim.

Note that in claims 13 and 20 the recitation of a pellet mill and the efficiency of such a pellet mill, do not further limit the preamble of these claims rendering the claims indefinite. Note the preamble: it is to a granulated composition.

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In claim 13, "adapted to" does not define what this entails and what other ingredients are used for such adaption. In any event in a composition claim, "adapted to" is significant only if it further defines the composition itself. In claim 13, "adapted to generate sodium phosphate" also does not define what is intended. The specification does not describe what 'adaptations' were used. The specification only describes a sodium additive such as sodium carbonate, soda ash, caustic soda, monosodium phosphate and potash (which of course, contains no sodium). No adaptations are described. See page 7, lines 9-11 of the specification.

The content of phosphorus of claims 4 and 12 is based on claim 1 or on claim 7 and, therefore, it is unclear whether this amount includes the P content of the abrasive such as monosodium phosphate. The specification does not provide any guidance to this aspect.

The claims will be interpreted as best understood based on the indefiniteness pointed out above. Applicant is urged to re-draft these claims to better define them and render them definite. Applicant is also cautioned against including new matter into the claims or specification when making any amendments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

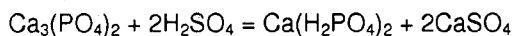
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3. Claims 1-3, 6-11, 13-20 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by EP0175805 in light of Cheremisinov, "Superphosphate", downloaded from <http://encyclopedia2.thefreedictionary.com/Superphosphate>, The Great Soviet Encyclopedia, 3rd Edition (1970-1979).

With regard to claim 1, EP0175805 discloses feed phosphate granules that include sodium carbonate and triple superphosphate and silica sand wherein the sodium is in an amount of about 10% at Example 2, para [0026] of the translation. With regard to claim 2, the reference uses triple superphosphate which inherently includes monocalcium phosphate. See Cheremisinov, "Superphosphate", downloaded from <http://encyclopedia2.thefreedictionary.com/Superphosphate>, The Great Soviet Encyclopedia, 3rd Edition (1970-1979):

Superphosphate

the most widely used mineral phosphorus fertilizer. The phosphorus in superphosphate is usually in the form of monocalcium phosphate and free phosphoric acid. The fertilizer contains gypsum and other admixtures, such as iron and aluminum phosphates, silica, and fluorine compounds. Superphosphate is obtained by the treatment of natural phosphates—apatite or phosphorite—or an apatite concentrate with sulfuric acid according to the reaction



Double superphosphate is derived by treating apatite or phosphorite with phosphoric acid.

Several types of superphosphate are produced industrially in the USSR. Ordinary superphosphate is a gray powder that is virtually noncaking and of average drillability; in fertilizer it provides 14–19 percent P_2O_5 that is available to plants. Granular superphosphate is derived from powdered superphosphate by adding moisture to it and rolling it into granules, usually 2–4 mm in diameter, in rotating drums. The granular type has a high drill-ability. Double superphosphate contains 45–48 percent available P_2O_5 and very little gypsum, and is usually made in granular form. Ammoniated superphosphate contains, in addition to 14–19.5 percent available P_2O_5 , not less than 1.6 percent ammonia. Manganese superphosphate contains 1.5–2.5 percent manganese, boronated superphosphate contains 0.1–0.3 percent boron, and molybdic superphosphate contains 0.1 percent molybdenum.

Superphosphate is used in all soils as a basic presowing fertilizer; it may be applied at the time of sowing, in which case granular superphosphate is the best type, or for top dressing. It is especially effective in

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alkaline and neutral soils. In acidic soil the phosphoric acid of the fertilizer is converted into aluminum and iron phosphates, which are difficult for plants to assimilate. In this case, the effectiveness of the superphosphate is increased by mixing it with phosphorite flour, limestone, chalk, and humus before application to limed fields.

REFERENCES

Prianishnikov, D. N. *Izbr. soch.*, vol. 1. Moscow, 1965.

Spravochnik po udobreniiam, 3rd ed. Moscow, 1964.

Superfosfat. Moscow, 1969. (Translated from English; edited by A. A. Sokolovskii.)

G. A. CHEREMISINOV

The Great Soviet Encyclopedia, 3rd Edition (1970-1979). © 2010 The Gale Group, Inc. All rights reserved.

With regard to claim 6, the reference discloses at Example 2, the amount of silica being about 2% (calculated). See para [0026].

Likewise, claims 7-11 are anticipated by the reference as well.

With regard to claim 13, the reference is taken as discussed above for claim 1.

The limitation "for use" is just that: intended use. Intended use limitations in a composition claim do not lend patentability to a composition that the reference already shows to be old and known. The limitation "pelleted via a pellet mill" is a process step in a product claim and since this is a product claim, and the reference discloses the product and it is well established that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted), the product is the same, a granulated phosphate.

Claims 14-20 are also anticipated as discussed for the above claims for the same reasons.

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Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-5 and 12 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over EP 0175805 in view of Hollingsworth et al.(US Patent 3189433) taken with Otrhalek et al. (US Patent 3441511).

The reference is taken as discussed above for claim 1. With regard to claim 4 and claim 5, the patent does not disclose the amounts of P and Na as claimed. However the EP patent will show (in the examples) that the content of phosphorus and sodium varies even with the starting material even though the starting material is the same super triple phosphate. This establishes the fact that the content of sodium and phosphorus will vary based on the initial sourced ore material used. Therefore, it would have been obvious to one of ordinary skill in the art, given the level of skill in the art as evidenced by the primary reference, that the starting materials' amounts may be selected depending on the amount of P and Na that is required in the final product, without undue experimentation. See for instance, Hollingsworth, the reference being drawn to agglomerating phosphate material, who discloses a silica content of 2-6% and

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a content of sodium (calculated) between about 4 and 7%, (see col. 2, line 13 and claim 1 ©). The patentees use rock phosphate as starting material. This patent discloses the same starting materials and agglomerating them to form agglomerates of phosphatic materials. Similarly, in order to obtain an amount of P in the claimed range, to select suitable phosphorus-containing starting materials would have been obvious to one of ordinary skill in the art at the time the invention was made. Note that the addition of siliceous materials are also not seen as being new or unobvious, because they are known to have detergent or wetting properties which aid in agglomeration as evidenced in Otrhalek at particularly, col. 2, line 69-col. 3, lines 1-10. See entire col. 2.

5. Claims 1-20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over SU 1740357 in view of Hollingsworth et al.(US Patent 3189433) taken with Otrhalek et al. (US Patent 3441511) and further in view of Larson et al. (US Patent 4101636).

The SU patent discloses a granulate that includes superphosphate which inherently contains monocalcium phosphate, silica and sodium carbonate. The amounts of the phosphate, silica and carbonate are not clear from this abstract and therefore, this rejection is being made under 35 USC 103. However, the abstract reports that the properties of the granulate are improved by the inclusion of silica. Additionally, Hollingsworth discloses a silica content of 2-6% and a content of sodium (calculated) between about 4 and 7%, (see col. 2, line 13 and claim 1 ©). The patentees use rock phosphate as starting material. This patent discloses the same starting materials and agglomerating them to form agglomerates of phosphatic



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materials. Similarly, in order to obtain an amount of P in the claimed range, to select suitable phosphorus-containing starting materials would have been obvious to one of ordinary skill in the art at the time the invention was made. Note that the addition of siliceous materials are also not seen as being new or unobvious, because they are known to have detergent or wetting properties which aid in agglomeration as evidenced in Otrhalek at particularly, col. 2, line 69-col. 3, lines 1-10 and entire col. 2. With regard to amounts of the alkaline material suitable to be mixed with the phosphatic material in order to granulate it, Larson suggests amounts for granulating wherein the phosphorous amount is at least 18% by weight of P (col. 8, lines 60-62; claim 3) and wherein the sodium (from sodium carbonate) is about 5-6.5% (calculated from Table at col. 8). Therefore, one of ordinary skill in the art would have known to select suitable amounts of silica, sodium carbonate with the sodium content as suggested by Larson, and the phosphorus source containing at least 18% P from the combined references as applied, from their disclosures.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s)

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because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to <http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-l.jsp>.

Claims 1-20 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 8012519 in light of the following two evidentiary references:

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"Phosphate Rock" downloaded from
www.mineralseducationcoalition.org/minerals/phosphate-rock, 2 pages dated 3/2003,
AND

"Triple Superphosphate" downloaded from
www.techsheets.simplot.com/Plant_Nutrients/12030_TSP0-45-.pdf, 2 pages dated
3/2003.

Although the claims at issue are not identical, they are not patentably distinct from each other because the claims are similar in scope in claiming a product that includes 'a phosphate source', which reads on the patented "monocalcium phosphate". Claims 1 of the patent and the application are exemplary of the overlap.

Application	Patent
1. A granulated phosphate feed ingredient composition comprising: a phosphate source; a sodium additive present in an amount that provides a sodium content of about one to about ten percent by weight of the composition; and an abrasive additive.	1. A granulated phosphate feed ingredient composition comprising: monocalcium phosphate; a sodium additive present in an amount that provides a sodium content of about one to about ten percent by weight of the composition; and an abrasive additive.

The evidentiary references show that "phosphate source" would include rock phosphate and super triple phosphate, and both would inherently include monocalcium phosphate.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Sayala whose telephone number is (571) 272-1405.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Tarazano, can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/C. SAYALA/
Primary Examiner, Art Unit 1791**

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Notice of References Cited	Application/Control No. 13/184,086	Applicant(s)/Patent Under Reexamination KANE ET AL.	
	Examiner C. Sayala	Art Unit 1791	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-3,441,511	04-1969	OTRHALEK JOSEPH V et al.	510/444
*	B	US-3,189,433	06-1965	HOLLINGSWORTH CLINTON A et al.	71/37
*	C	US-4,101,636	07-1978	Larson et al.	423/305
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	EP 175805 A	04-1986	European Patent	FAZEKAS A et al.	
	O	SU 1740357 A1	06-1992		GUMBATOV M O et al.	
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Machine translation of EP0175805, 11 pages
	V	"Phosphate Rock" downloaded from www.mineralseducationcoalition.org/minerals/phosphate-rock , 2 pages dated 3/2003
	W	"Triple Superphosphate" downloaded from www.techsheets.simplot.com/Plant_Nutrients/12030_TSP0-45-.pdf , 2 pages dated 3/2003
X	X	Cheremisinov, "Superphosphate", downloaded from http://encyclopedia2.thefreedictionary.com/Superphosphate , The Great Soviet Encyclopedia, 3rd Edition (1970-1979) Incorporated in the Office action

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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Index of Claims 	Application/Control No. 13184086	Applicant(s)/Patent Under Reexamination KANE ET AL.
	Examiner CHHAYA SAYALA	Art Unit 1791

☒ Rejected	☐ Cancelled	☐ Non-Elected	☐ Appeal
☐ Allowed	☐ Restricted	☐ Interference	☐ Objected

☐ Claims renumbered in the same order as presented by applicant											☐ CPA	☐ T.D.	☐ R.1.47
CLAIM		DATE											
Final	Original	10/27/2013											
	1	✓											
	2	✓											
	3	✓											
	4	✓											
	5	✓											
	6	✓											
	7	✓											
	8	✓											
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	13	✓											
	14	✓											
	15	✓											
	16	✓											
	17	✓											
	18	✓											
	19	✓											
	20	✓											

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6 TABLA DE CORRESPONDENCIA DE REIVINDICACIONES		
Reivindicaciones en la solicitud en Colombia	Reivindicaciones otorgables en la solicitud internacional	Explicación sobre la suficiente correspondencia ó Comentarios que explican la correspondencia
1. Una composición ingrediente para alimentación de fosfato granulado que comprende: una fuente de fosfato; un aditivo de sodio presente en una cantidad que proporciona un contenido de sodio de aproximadamente uno a aproximadamente diez por ciento en peso de la composición; y un aditivo abrasivo.	1 Una composición ingrediente para alimentación de fosfato granulado para uso como un ingrediente en alimento animal en gránulos que comprende: una fuente de fosfato <u>que comprende fosfato monocálcico, fosfato mono-dicálcico, fosfato dicálcico, o combinaciones de los mismos;</u> un aditivo lubricante que comprende un compuesto de sodio presente en una cantidad que proporciona un contenido de sodio de aproximadamente uno a aproximadamente diez por ciento en peso de la composición; y un aditivo abrasivo.	

2. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que la fuente de fosfato comprende fosfato monocálcico, fosfato monod cálcico, fosfato dicálcico, o combinaciones de los mismos.	2.	Incluida en la reivindicación 1
3. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el aditivo de sodio se selecciona de entre carbonato de sodio, hidróxido de sodio, fosfato monosódico, potasa, y combinaciones de los mismos.	3. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el compuesto de sodio se selecciona de entre carbonato de sodio, hidróxido de sodio, fosfato monosódico, y combinaciones de los mismos.	
4. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el ingrediente para	4. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el ingrediente	

alimentación de fosfato granulado comprende un contenido de fósforo de al menos aproximadamente dieciocho por ciento en peso de la composición.	para alimentación de fosfato granulado comprende un contenido de fósforo de al menos aproximadamente dieciocho por ciento en peso de la composición.	
5. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el contenido de sodio comprende de aproximadamente tres a aproximadamente cinco por ciento en peso de la composición.	5. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el contenido de sodio comprende de aproximadamente tres a aproximadamente cinco por ciento en peso de la composición.	
6. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el aditivo abrasivo comprende sílice en una cantidad de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.	6. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 1, en la que el aditivo abrasivo comprende sílice en una cantidad de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.	

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7. Una composición ingrediente para alimentación de fosfato granulado que comprende:
una fuente de fosfato; y
un aditivo abrasivo en una cantidad de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.

8. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 7, en la que la fuente de fosfato comprende fosfato monocálcico, fosfato mono-dicálcico, fosfato dicálcico, o combinaciones de los mismos.

7. Una composición ingrediente para alimentación de fosfato granulado para uso como ingrediente de alimentación en alimento animal en gránulo, que comprende:

una fuente de fosfato comprende fosfato monocálcico, fosfato mono-dicálcico, fosfato dicálcico, o combinaciones de los mismos; y
un aditivo abrasivo en una cantidad de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.

8.

La reivindicación 8 fue incluida en la reivindicación 7

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9. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 7, en la que el aditivo abrasivo comprende sílice.	9. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 7, en la que el aditivo abrasivo comprende sílice.	
10. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 7, que comprende además un aditivo de sodio, en la que el aditivo de sodio proporciona un contenido de sodio de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.	10. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 7, que comprende además un aditivo de sodio, en la que el aditivo de sodio proporciona un contenido de sodio de aproximadamente uno a aproximadamente diez por ciento en peso de la composición y <u>en donde el aditivo de sodio es adaptado para generar fosfato de sodio durante la granulación</u>	

11. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 10, en la que el aditivo de sodio se selecciona de entre carbonato de sodio, hidróxido de sodio, fosfato monosódico, potasa, y combinaciones de los mismos.	11. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 10, en la que el aditivo de sodio se selecciona de entre carbonato de sodio, hidróxido de sodio, fosfato monosódico, y combinaciones de los mismos.	
12. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 7, en la que el ingrediente para alimentación de fosfato granulado comprende un contenido de fósforo de al menos aproximadamente dieciocho por ciento en peso de la composición.	12. La composición ingrediente para alimentación de fosfato granulado de la reivindicación 7, en la que el ingrediente para alimentación de fosfato granulado comprende un contenido de fósforo de al menos aproximadamente dieciocho por ciento en peso de la composición.	

13. Una composición de fosfato granulado para su uso como un ingrediente de alimentación en la alimentación animal, en la que la alimentación de los animales se granula mediante un molino de gránulos, la composición de fosfato granulado comprende:

una fuente de fosfato;

un aditivo abrasivo, el aditivo abrasivo adaptado para purgar un troquel de molino de gránulos durante la granulación, y un aditivo de lubricidad, en la que el aditivo de lubricidad está adaptado para generar fosfato de sodio para lubricar el troquel durante la granulación.

13. Una composición de fosfato granulado para su uso como un ingrediente de alimentación en la alimentación animal, en la que la alimentación de los animales se granula mediante un molino de gránulos, la composición de fosfato granulado comprende:

una fuente de fosfato comprende fosfato monocálcico, fosfato mono-dicálcico, fosfato dicálcico, o una combinación de los mismos;

un aditivo abrasivo, el aditivo abrasivo adaptado para purgar un troquel de molino de gránulos durante la granulación, y un aditivo de lubricidad, en la que el aditivo de lubricidad está adaptado para generar fosfato de sodio para lubricar el troquel durante la granulación y un aditivo abrasivo en donde el aditivo

	abrasivo comprende un compuesto de sodio que es adaptado para generar fosfato de sodio para lubricar el dado durante el granulado	
14. La composición de fosfato granulado de la reivindicación 13, en la que la fuente de fosfato comprende fosfato monocálcico, fosfato monodicálcico, fosfato dicálcico, o combinaciones de los mismos.		<i>Incluida en la reivindicación 13</i>
15. La composición de fosfato granulado de la reivindicación 13, en la que el aditivo de lubricidad comprende un aditivo de sodio.		<i>Incluida en la reivindicación 13</i>

16. La composición de fosfato granulado de la reivindicación 15, en la que el aditivo de sodio se selecciona de entre carbonato de sodio, hidróxido de sodio, fosfato monosódico, posata, y combinaciones de los mismos.	16. La composición de fosfato granulado de la reivindicación 15, en la que el <u>compuesto</u> de sodio se selecciona de entre carbonato de sodio, hidróxido de sodio, fosfato monosódico, y combinaciones de los mismos.	
14. La composición de fosfato granulado de la reivindicación 15, en la que el aditivo de sodio está presente en una cantidad que proporciona un contenido de sodio de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.	17. La composición de fosfato granulado de la reivindicación 15, en la que el <u>compuesto</u> de sodio está presente en una cantidad que proporciona un contenido de sodio de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.	
18. La composición de fosfato granulado de la reivindicación 13, en la que el aditivo abrasivo	18. La composición de fosfato granulado de la reivindicación 13, en la que el aditivo	

comprende sílice.	abrasivo comprende sílice.	
19. La composición de fosfato granulado de la reivindicación 13, en la que el aditivo abrasivo está presente en una cantidad de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.	19. La composición de fosfato granulado de la reivindicación 13, en la que el aditivo abrasivo está presente en una cantidad de aproximadamente uno a aproximadamente diez por ciento en peso de la composición.	
20. La composición de fosfato granulado de la reivindicación 13, en la que una eficiencia del molino de granulados es al menos un cien por ciento de una eficiencia del molino de granulados cuando se muele el alimento animal sin la composición de fosfato granulado.	20 La composición de fosfato granulado de la reivindicación 13, en la que <u>la incorporación de la composición de fosfato granulada en el alimento animal produce</u> una eficiencia del molino de granulados <u>que</u> es al menos un cien por ciento de una eficiencia del molino de granulados cuando se muele el alimento animal <u>sin la incorporación</u> de la	

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	composición de fosfato granulado.	
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