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TRADUCIDO AL ESPAÑOL

Atención:

Administración encargada del examen preliminar internacional
(IPEA/US)

Mail Stop PCT

Comisionado de Patentes

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Virginia 22313-1450

Atención: Vergüenza Thomas

Fecha: 8 de noviembre de 2020

Oro Agri Ref.: P18PC

Su ref.: PCT/IB2020/050113

Estimado señor

DEMANDA DE EXAMEN PRELIMINAR INTERNACIONAL

VENCIMIENTO 8 DE NOVIEMBRE DE 2020

(PRESENTADO HASTA EL 9 DE NOVIEMBRE DE 2020 PORQUE EL 8 DE NOVIEMBRE ES UN DOMINGO)

Solicitud internacional de patente N° **PCT/IB2020/050113 (WO2020/144590 A1)** a nombre de **ORO AGRI INC.** titulado **“Un Adyuvante Agrícola Líquido”**

A. General

El plazo para presentar una Demanda PCT en la solicitud antes mencionada es el 8 de noviembre de 2020, de conformidad con la Regla 54bis 1.a) del PCT, y debido a que se trata de un domingo, el plazo se extiende al lunes 9 de noviembre de 2020.

El solicitante presenta simultáneamente con esta carta una demanda de examen preliminar internacional (presentada electrónicamente a través de ePCT) y una respuesta formal en virtud del artículo 34.

B. RESPUESTA FORMAL

PASAMOS AHORA AL DICTAMEN ESCRITO:

Al principio, se agradece amablemente al examinador por considerar esta solicitud.

(i) Caja nº V – Párrafo 2 – Citas y explicaciones

Las alegaciones 1 a 6, 8 a 14, 15/1, 16/15/1, 16/15/13, 17/16/15/1, 17/16/15/13, 18/17/16/15/1 y 18/17/16/15/13 carecen de una actividad inventiva con arreglo al párrafo 3 del artículo 33 del PCT, por ser evidentes en relación con la US2020/0160168 A1 (LINDER), en vista de US2007/0179077 A1 a Formstone, y otros (FORMSTONE).

El examinador explica que Linder revela las siguientes características esenciales de la Reclamación 1 pendiente:

(aa) un adyuvante agrícola líquido (formulaciones homogéneas estables de concentrados de agroquímicos líquidos; útiles como adyuvantes de mezcla en tanques; (Resumen), que comprende:

(bb) al menos un éster de alquilo ($C_1 - C_8$) de un ácido de alquilo ($C_{12} - C_{16}$) (uso de ácido láurico, ácido mirístico y ácido palmítico, que constituyen éster de alquilo ($C_1 - C_8$) de un ácido de alquilo ($C_{12} - C_{16}$); Párrafo [0053]);

(cc) al menos un tensioactivo aniónico (resumen; Párrafo [0020]; Reivindicaciones 3, 5); y

(dd) al menos un tensioactivo no iónico (resumen; Párrafo [0020], reivindicación 1); y

(ee) en donde al menos un éster de alquilo ($C_1 - C_8$) ácido de alquilo ($C_{12} - C_{16}$) tiene una capacidad de disolución de cera parafínica de entre 2 a 20 % en peso a 25°C (explicando que cualquiera de los ésteres de alquilo ($C_1 - C_8$) divulgados de un ácido de alquilo ($C_{12} - C_{16}$) posee necesariamente una capacidad de disolución de cera parafínica de entre 2 a 20% en peso a 25°C ya que la estructura bien definida de cualquiera de ácido láurico, ácido mirístico y ácido palmítico, y sus propiedades intrínsecas son inseparables e inextricablemente ligadas; Párrafos [0015], [0053]).

El examinador señala que Linder no revela la siguiente característica esencial de la reclamación pendiente 1:

(ff) en donde el adyuvante agrícola líquido tiene un punto de inflamación superior a unos 100°C.

La deficiencia de Linder, es decir, la falta de característica esencial (ff), se dice que se cura por las revelaciones de Formstone.

El examinador explica que Formstone revela una composición agroquímica acuosa (párrafo [0016]; Reivindicaciones 9 a 11), en las que un adyuvante agrícola líquido (párrafo [0049]; Las reivindicaciones 9-11) tienen un punto de inflamación superior a unos 100°C (miristato de isopropilo, cocoato de butilo y laurato de butilo, todos los cuales tienen una densidad de 0,85 g/ml y un punto de inflamación superior a unos 100°C, son particularmente adecuados para su uso como disolventes en la presente invención; Párrafo [0044]).

El examinador explica que habría sido obvio para una persona experta en la materia, en el momento de la invención, haber incorporado fácilmente adyuvante agrícola líquido que comprende un punto de inflamación superior a unos 100 °C, como se ha indicado anteriormente

por Formstone, dentro del adyuvante agrícola líquido que comprende al menos un éster de alquilo ($C_1 - C_8$) un ácido de alquilo ($C_{12} - C_{16}$), como se ha indicado anteriormente por Linder, para lograr y aplicar un agroquímico soluble en agua (Formstone; párrafo [0016]).

El solicitante respetuosamente no está de acuerdo, y solicita la reconsideración basada en los comentarios a continuación.

Una característica esencial de Linder es el electrolito acuoso concentrado (véase el resumen, párrafo [0019], [0026], [0032], [0038], [0046] y la reivindicación 1 de Linder). Linder describe en el párrafo [0014] que los electrolitos acuosos concentrados tienden a no ser estables cuando se combinan directamente con electrolitos altamente concentrados. El párrafo [0015] explica que la invención de Linder se basa en un desarrollo de concentrados acuosos concentrados de tipo electrolito que pueden incluir de forma estable concentraciones sustanciales de electrolitos. Como tal, el concentrado de electrolito acuoso es un elemento esencial de la formulación de Linder, y uno de habilidad en el arte viendo las enseñanzas de Linder concluiría que tal electrolito acuoso concentrado debe estar presente en cualquier composición basada en Linder.

La invención actualmente reclamada de la reivindicación 1 no incluye ningún electrolito acuoso concentrado según las enseñanzas de Linder.

Es importante destacar que cualquier modificación de Linder para excluir el electrolito acuoso concentrado haría que Linder fuera insatisfactorio para su propósito previsto. En consecuencia, cualquier combinación de Linder con la referencia secundaria del estado de la técnica (Formstone) siempre requerirá la inclusión del concentrado de electrolito acuoso, y como tal nunca dará lugar a la invención reivindicada. La enseñanza expresa y necesaria del concentrado de electrolito acuoso de Linder **enseña lejos** de un invento que carece de esta característica esencial.

Linder establece que el electrolito acuoso concentrado incluye fertilizantes inorgánicos y plaguicidas (generalmente un herbicida) (véanse los párrafos [0015], [0095], [0098] y [0099] a [0117]).

El examinador se basa en el párrafo [0053] de Linder con respecto a las enseñanzas de "al menos un éster de alquilo ($C_1 - C_8$) de un ácido de alquilo ($C_{12} - C_{16}$) " ya que Linder revela el uso de ácido láurico, ácido mirístico, y ácido palmítico. Sin embargo, Linder también enseña en el párrafo [0053] que *"el componente del aceite típicamente tiene un punto de ebullición de aproximadamente 200°C a presión atmosférica y un punto de fusión típicamente no superior a unos 60 °C"*. El ácido palmítico de Linder tiene un punto de fusión de 62,9°C que es superior a unos 60°C según Linder en el mismo párrafo (ver https://en.wikipedia.org/wiki/Palmitic_acid). Estas enseñanzas de Linder no motivarán ni sugerirán a la persona experta que confíe en ellas sin poner a prueba cada enseñanza de Linder. Esto equivaldrá a una experimentación indebida.

Como se discutió, ninguna combinación de Linder junto con Formstone llegará a la invención actualmente reclamada sin alterar Linder para que sea totalmente inadecuado para su propósito previsto. Ninguna persona experta en el arte modificaría Linder para que no fuera adecuado para su propósito previsto y luego combinaría esta invención inadecuada con las enseñanzas de Formstone.

Formstone enseña la formulación antiespumosas (ver Título) y "*composiciones acuosas comprenden un agente antiespuma líquido insoluble en agua en el que el antiespuma líquido insoluble en agua se incorpora a la composición como una solución en un disolvente orgánico*" (ver Resumen).

Formstone es invocado por el Examinador para curar la deficiencia de Linder citando el párrafo [0044] de Formstone. El párrafo [0044] revela que el miristato de isopropilo, el cacaoto de butilo y el laurato de butilo tienen una densidad de 0,85 g/ml y un punto de inflamación superior a unos 100°C. Sin embargo, no hay ninguna enseñanza, motivación o sugerencia de Formstone, solo o en combinación con Linder, proporcionaría un coadyuvante que tenga un punto de inflamación superior a unos 100°C. En otras palabras, es el adyuvante agrícola líquido que comprende (bb) al menos un éster de alquilo ($C_1 - C_8$) un ácido de alquilo ($C_{12} - C_{16}$), (cc) al menos un surfactante aniónico, y (dd) al menos un surfactante no iónico, que junto con el adyuvante agrícola líquido tiene un punto de inflamación de más de aproximadamente 100°C. La persona experta en el arte no puede, y no lo haría, esperar razonablemente suponer una combinación de un producto químico que tiene un punto de inflamación de más de aproximadamente 100 °C junto con otros productos químicos donde no hay enseñanza de ningún punto de inflamación daría lugar a un adyuvante en el que el punto de inflamación se ha mantenido más alto que aproximadamente 100 °C. Formstone sólo revela que un disolvente deseado para su invención debe tener un punto de inflamación superior a 40 °C, y más particularmente unos 100 °C (véase el párrafo [0040] de Formstone).

El solicitante sostiene respetuosamente que ninguna combinación de Linder y Formstone llegará a la invención reivindicada pendiente instantáneamente, y que la invención pendiente al instante es a la vez novedosa e inventiva sobre el estado de la técnica citado. Por consiguiente, la demandante sostiene que la reivindicación 1 y todas sus alegaciones dependientes son tanto novedosas como inventivas.

La reivindicación 7 carece de actividad inventiva en virtud del Artículo 33.3) del PCT, ya que es evidente en relación con Linder y Formstone y, además, en vista de la US2013/0190360 A1 a Xu, y otros (en adelante, "Xu").

El examinador explica que Linder y Formstone son silenciosos en cuanto a los alcoholes etoxilados que tienen un grado de etoxilación de 1 a 50, y explica que esta deficiencia se cura por las enseñanzas de Xu citando el párrafo [0126]. El solicitante respetuosamente no está de acuerdo y solicita una reconsideración en vista de los siguientes comentarios.

Xu enseña "[una] composición pesticida que contiene un insecticida piripiropeno y un coadyuvante" (ver Resumen). En todo momento la invención de Xu incluye un insecticida piripiropeno de la fórmula I o II. La persona experta en el arte no consideraría las enseñanzas de Xu.

La mención de la etoxilación en el párrafo [0126] de Xu es en particular una referencia al óxido de propileno-óxido de etileno (PO-EO)- alcoxilado de bloque. El párrafo [0126] proporciona "[p]referencia se da a los **etoxilatos de bloque PO-EO** en los que la ración de PO a EO (x a y) es de 1:10 a 10:1, preferiblemente de 12:1 a 1:1 y en particular de 2:1 a 8:1. **En este contexto, el grado de etoxilación (valor de y)** es generalmente de 1 a 20, preferiblemente de 2 a 15 y en particular de 2 a 10. **El grado de propoxilación (valor de x)** es generalmente de 0,5 a 30, preferiblemente de 4 a 20 y en particular de 6 a 16. El grado global de alcoxilación, es decir, la suma de las unidades de OE y PO, es generalmente de 1,5 a 50, preferiblemente de 2,5 a 30 y, en particular, de 8 a 20." (las cursivas en el original). El párrafo [0126] revela la etoxilación y la propoxilación de los alcoxilados de bloque PO-EO solamente. Esto es muy específico, y no hay ninguna enseñanza, sugerencia o motivación por parte de Xu para etoxilar nada que no sea PO-EO bloques etoxilados.

En consecuencia, la persona experta en el arte no estaría motivada u ocasionada por Xu. Ninguna combinación de Linder, Formstone y Xu dará lugar a la invención actualmente reivindicada, ya que ninguna combinación de Linder y Formstone enseña la invención de la reivindicación 1, sino también que la invención reivindicada no enseña los etoxilados de bloque PO-EO, por lo que ninguna combinación dará lugar a la invención reivindicada de la reivindicación 7.

El solicitante sostiene que la invención reivindicada es a la vez nueva e inventiva en el estado de la técnica citado, e incluye una actividad inventiva en el sentido del Artículo 33.3) del PCT.

Las reivindicaciones 1 a 14, 15/1, 15/13, 16/15/1, 16/15/13, 17/16/15/1, 17/16/15/13, 18/17/16/15/1 y 18/17/16/15/13 tienen aplicabilidad industrial según se define en el Artículo 33 4) del PCT porque la materia puede ser fabricada o utilizada en la industria.

El solicitante agradece al examinador esta determinación.

En conclusión, el solicitante sostiene que la invención reivindicada cumple los requisitos de patentabilidad previstos en el PCT.

atentamente

Charl Marais

Por y en nombre del Solicitante (Oro Agri Inc.)

cmarais@oroagri.com

ePCT - Cover Letter

ePCT Action: Submit Chapter II Demand

Competent IPEA:

US

IA Number:

PCT/IB2020/050113

Message:

Dear Sirs/Madams

DEMAND FOR INTERNATIONAL PRELIMINARY EXAMINATION

International Patent Application No. PCT/IB2020/050113 (WO2020/144590 A1) in the name of ORO AGRI INC. entitled A Liquid Agricultural Adjuvant

The time limit to file a PCT Demand in the abovementioned application is November 8th, 2020, in accordance with Rule 54bis 1(a) PCT, and owing to the fact that this is a Sunday the deadline rolls over to Monday November 9th, 2020.

The Applicant is lodging concurrently with this letter a Demand for International Preliminary Examination (lodged electronically via ePCT), and a Formal Reply under Article 34.

Yours faithfully

Charl Marais

By and on behalf of the Applicant (Oro Agri Inc.)

The following documents were submitted as attachments:

- Chapter II Demand : 1 document
- Response to the Written Opinion of the ISA: 1 document

Signature:	/CG Marais - by and on behalf of Oro Agri Inc./
Signatory:	MARAIS, Charl Guillaume (Agent)
Date:	08 November 2020 19:19:31 CET
User Name:	Charl MARAIS
Authentication:	Sign-in with strong authentication

PCT

DEMAND

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty.

For International Preliminary Examining Authority use only

Identification of IPEA: US	Date of receipt of DEMAND: 08 November 2020(08.11.2020)
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Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION		Applicant's or agent's file reference P18PC
International application No. PCT/IB2020/050113	International filing date 08 January 2020(08.01.2020)	(Earliest) Priority date 08 January 2019(08.01.2019)
Title of invention A LIQUID AGRICULTURAL ADJUVANT		
Box No. II APPLICANT(S)		
Name and address: ORO AGRI INC. 2788 S. Maple Avenue Fresno, California 93725 United States of America		Telephone No. +27721154492
		Facsimile No.
		Applicant's registration No. with the Office
Nationality: United States of America	Residence: United States of America	
E-mail authorization: Marking one of the check-boxes below authorizes the International Bureau and the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send notifications issued in respect of this international application if those offices are willing to do so. ☐ as advance copies followed by paper notifications; or ☐ exclusively in electronic form (no paper notifications will be sent). E-mail address: c.marais@oroagri.com		
☐ Further applicants are indicated on a continuation sheet.		

Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The following person is ☒ agent ☐ common representative

and ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.

☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.

☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.

Name and address:

MARAIS, Charl Guillaume**Oro Agri Group Intellectual Property Manager and R&D Counsel****2788 S. Maple Avenue****Fresno, California 93725****United States of America**

Telephone No.

+27721154492

Facsimile No.

Agent's registration No. with the
Office

E-mail authorization: Marking one of the check-boxes below authorizes the International Bureau and the International Preliminary Examining Authority to use the e-mail address indicated in this Box to send notifications issued in respect of this international application if those offices are willing to do so.

- ☐ as advance copies followed by paper notifications; or
- ☒ exclusively in electronic form (no paper notifications will be sent).

E-mail address: cmarais@oroagri.com

- ☐ **Address for correspondence:** Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION**Statement concerning amendments:***

1. The applicant wishes the international preliminary examination to start on the basis of:

- the description ☒ as originally filed, or
☐ as amended under Article 34
- the sequence listing (if any) ☐ as originally filed, or
☐ as amended under Article 34
☐ in the form of an Annex C/ST.25 text file
☐ in the form of an image file
- the claims ☒ as originally filed, or
☐ as amended under Article 19, and/or
☐ as amended under Article 34
- the drawings (if any) ☒ as originally filed, or
☐ as amended under Article 34

2. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.
3. ☐ Where the IPEA wishes to start the international preliminary examination at the same time as the international search in accordance with Rule 69.1(b), the applicant requests the IPEA **to postpone** the start of the international preliminary examination until the expiration of the applicable time limit under Rule 69.1(d).
4. ☒ The applicant expressly requests **to postpone** the start of the international preliminary examination until the expiration of the applicable time limit under Rule 54bis.1(a).

* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: English

- ☒ which is the language in which the international application was filed.
- ☐ which is the language of a translation furnished for the purposes of international search.
- ☐ which is the language of publication of the international application.
- ☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.

Box No. V ELECTION OF STATES

The filing of this demand constitutes the election of all Contracting States which are designated and are bound by Chapter II of the PCT.

Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- Response to the Written Opinion of the ISA: 1 document

Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

/CG Marais - by and on behalf of Oro Agri Inc./

Name (LAST, First): **MARAIS, Charl Guillaume**

For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND: 08 November 2020(08.11.2020)	
2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):	
3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply. ☐ The applicant has been informed accordingly.	6. ☐ The date of receipt of the demand is AFTER the expiration of the time limit under Rule 54bis.1(a) and item 7 or 8, below, does not apply.
4. ☐ The date of receipt of the demand is WITHIN the time limit of 19 months from the priority date as extended by virtue of Rule 80.5.	7. ☐ The date of receipt of the demand is WITHIN the time limit under Rule 54bis.1(a) as extended by virtue of Rule 80.5.
5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rules 82 or 82quater.	8. ☐ Although the date of receipt of the demand is after the expiration of the time limit under Rule 54bis.1(a), the delay in arrival is EXCUSED pursuant to Rules 82 or 82quater.

For International Bureau use only

Demand received from IPEA on:

PCT

FEE CALCULATION SHEET

Annex to the Demand

International application No.	PCT/IB2020/050113	For International Preliminary Examining Authority use only Date stamp of the IPEA
Applicant's or agent's file reference	P18PC	
Applicant ORO AGRI INC.		
CALCULATION OF PRESCRIBED FEES		
1. Preliminary examination fee	640.0 (USD) P	
2. Handling fee (Applicants from certain States are entitled to a reduction of 90% of the handling fee. Where the applicant is (or all applicants are) so entitled, the amount to be entered at H is 10% of the handling fee.)	217.0 (USD) H	
3. Total of prescribed fees Add the amounts entered at P and H and enter total in the TOTAL box	857.00 (USD)	
		TOTAL
MODE OF PAYMENT (Not all modes of payment may be available at all IPEAs)		
☐ authorization to charge deposit or current account with the IPEA (see below) ☐ credit card (details should be furnished separately and not included on this sheet)		
☐ cheque ☐ revenue stamps		
☐ postal money order ☐ cash		
☐ bank transfer ☐ other(specify):		
AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT OR CURRENT ACCOUNT (This mode of payment may not be available at all IPEAs)		
☐ Authorization to charge the total fees indicated above.		IPEA/
☐ (This check-box may be marked only if the conditions for deposit or current accounts of the IPEA so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.		Deposit or Current Account No.:
		Date:
		Name:
		Signature:

Electronic Filing via ePCT

Attention:
International Preliminary Examining Authority
(IPEA/US)

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450, Alexandria
Virginia 22313-1450

Attention: Shame Thomas

Date: November 8th, 2020
Oro Agri Ref.: P18PC
Your Ref.: PCT/IB2020/050113

Dear Sir

**DEMAND FOR INTERNATIONAL PRELIMINARY EXAMINATION
DUE NOVEMBER 8TH, 2020
(ROLLS TO NOVEMBER 9TH, 2020 BECAUSE NOV 8TH IS A SUNDAY)**

International Patent Application No. **PCT/IB2020/050113 (WO2020/144590 A1)** in the name of **ORO AGRI INC.** entitled **A Liquid Agricultural Adjuvant**

A. GENERAL

The time limit to file a PCT Demand in the abovementioned application is November 8th, 2020, in accordance with Rule 54bis 1(a) PCT, and owing to the fact that this is a Sunday the deadline rolls over to Monday November 9th, 2020.

The Applicant is lodging concurrently with this letter a Demand for International Preliminary Examination (lodged electronically via ePCT), and a Formal Reply under Article 34.

B. FORMAL REPLY

WE NOW REFER TO THE WRITTEN OPINION:

At the outset the examiner is kindly thanked for considering this application.

(i) Box No. V – Paragraph 2 – Citations and Explanations

Claims 1-6, 8-14, 15/1, 16/15/1, 16/15/13, 17/16/15/1, 17/16/15/13, 18/17/16/15/1 and 18/17/16/15/13 lack an inventive step under PCT Article 33 (3) as being obvious over US 2020/0160168 A1 (LINDER) in view of US 2007/0179077 A1 to Formstone, et al. (FORMSTONE).

The Examiner explains that Linder discloses the following essential features of pending Claim 1:

- (aa) a liquid agricultural adjuvant (homogenous stable liquid agrochemical concentrate formulations; useful as tank mix adjuvants; (Abstract), comprising:
- (bb) at least one alkyl ($C_1 - C_8$) ester of an alkyl ($C_{12} - C_{16}$) acid (use of lauric acid, myristic acid, and palmitic acid, which all constitute alkyl ($C_1 - C_8$) ester of an alkyl ($C_{12} - C_{16}$) acid; Paragraph [0053]);
- (cc) at least one anionic surfactant (Abstract; Paragraph [0020]; Claims 3, 5); and
- (dd) at least one nonionic surfactant (Abstract; Paragraph [0020], Claim 1); and
- (ee) wherein the at least one alkyl ($C_1 - C_8$) esters of alkyl ($C_{12} - C_{16}$) acid has a paraffinic wax dissolution capability of between 2 to 20 wt. % at 25°C (explaining that any of the disclosed alkyl ($C_1 - C_8$) esters of an alkyl ($C_{12} - C_{16}$) acid necessarily possesses a paraffinic wax dissolution capability of between 2 to 20 wt.% at 25°C since the well-defined structure of any of lauric acid, myristic acid and palmitic acid, and their intrinsic properties are inseparable and inextricably linked; Paragraphs [0015], [0053]).

The Examiner notes that Linder does not disclose the following essential feature of pending Claim 1:

- (ff) wherein the liquid agricultural adjuvant has a flash point higher than about 100°C.

The deficiency of Linder, i.e. the lack of essential feature (ff), is said to be cured by the disclosures of Formstone.

The Examiner explains that Formstone discloses an aqueous agrochemical composition (Paragraph [0016]; Claims 9-11), wherein a liquid agricultural adjuvant (Paragraph [0049]; Claims 9-11) has a flash point higher than about 100°C (isopropyl myristate, butyl cocoate and butyl laurate, all of which have a density of 0.85 g/ml and a flashpoint great than about 100°C, are particularly suitable for use as solvents in the present invention; Paragraph [0044]).

The Examiner explains that it would have been obvious to a person skilled in the art, at the time of the invention, to have readily incorporated liquid agricultural adjuvant comprising a flashpoint higher than about 100 °C, as previously disclosed by Formstone, within the liquid agricultural adjuvant comprising at least one alkyl ($C_1 - C_8$) ester of an alkyl ($C_{12} - C_{16}$) acid, as previously disclosed by Linder, for achieving and implementing a water-soluble agrochemical (Formstone; paragraph [0016]).

The Applicant respectfully disagrees, and requests reconsideration based on the below comments.

An essential feature of Linder is the concentrated aqueous electrolyte (see Abstract, paragraph [0019], [0026], [0032], [0038], [0046] and Claim 1 of Linder). Linder describes at paragraph [0014] that concentrated aqueous electrolytes tend not to be stable when combined directly with highly concentrated electrolyte. Paragraph [0015] explains that the invention of Linder

is based on a development of concentrated aqueous electrolyte-type concentrates which can stably include substantial electrolyte concentrations. As such, the concentrate aqueous electrolyte is an essential element of Linder's formulation, and one of skill in the art viewing the teachings of Linder would conclude that such a concentrated aqueous electrolyte must be present in any composition based on Linder.

The presently claimed invention of claim 1 does not include any concentrated aqueous electrolyte as per the teachings of Linder.

Importantly, any modification of Linder to exclude the concentrate aqueous electrolyte would render Linder unsatisfactory for its intended purpose. Accordingly, any combination of Linder with the secondary prior art reference (Formstone) will always necessitate the inclusion of the concentrate aqueous electrolyte, and as such will never result in the claimed invention. The express and necessary teaching of the concentrate aqueous electrolyte of Linder **teaches away** from an invention that lacks this essential feature.

Linder provides that the concentrated aqueous electrolyte includes inorganic fertilizers and pesticides (usually a herbicide) (see paragraphs [0015], [0095], [0098], and [0099] to [0117]).

The Examiner relies on paragraph [0053] of Linder regarding the teachings of "at least one alkyl ($C_1 - C_8$) ester of an alkyl ($C_{12} - C_{16}$) acid" since Linder discloses use of lauric acid, myristic acid, and palmitic acid. However, Linder also teaches in paragraph [0053] that "*[t]he oil component typically has a boiling point of about 200 °C at atmospheric pressure and a melting point typically not higher than about 60 °C*". The palmitic acid of Linder has a melting point of 62.9 °C which is higher than about 60 °C as per Linder in the same paragraph (see https://en.wikipedia.org/wiki/Palmitic_acid). These teachings of Linder will not motivate or suggest to the skilled person to rely on them without testing each teaching of Linder. This will amount to undue experimentation.

As discussed, no combination of Linder together with Formstone will ever arrive at the presently claimed invention without altering Linder to be wholly unsuited for its intended purpose. No person skilled in the art would modify Linder to be unsuited for its intended purpose and then combine this unsuitable invention with the teachings of Formstone.

Formstone teaches antifoaming formulations (see Title) and "*[a]queous compositions comprising a water-insoluble liquid antifoam agent wherein the water-insoluble liquid antifoam is incorporated into the composition as a solution in an organic solvent*" (see Abstract).

Formstone is relied up by the Examiner for curing the deficiency of Linder citing paragraph [0044] of Formstone. Paragraph [0044] discloses that isopropyl myristate, butyl cocoate and butyl laurate all have a density of 0.85 g/ml and a flashpoint great than about 100°C. However, there is no teaching, motivation or suggestion from Formstone, alone or in combination with Linder, would provide an adjuvant having a flash point higher than about 100 °C. In other words, it is the liquid agricultural adjuvant comprising (bb) at least one alkyl ($C_1 - C_8$) ester of an alkyl ($C_{12} - C_{16}$) acid,

(cc) at least one anionic surfactant, and (dd) at least one nonionic surfactant, that together as the liquid agricultural adjuvant has a flash point of higher than about 100 °C. The skilled person in the art can not, and would not, reasonably expect that a combination of one chemical having a flashpoint of higher than about 100 °C together with other chemicals where there is no teaching of any flash points would result in an adjuvant wherein the flash point has remained higher than about 100 °C. Formstone only discloses that a solvent desired for its invention should have a flash point greater than 40 °C, and more particularly about 100 °C (see paragraph [0040] of Formstone).

The Applicant respectfully submits that no combination of Linder and Formstone will arrive at the instantly pending claimed invention, and that the instantly pending invention is both novel and inventive over the cited prior art. Consequently, the Applicant submits that claim 1 and all its dependent claims are both novel and inventive.

Claim 7 lacks inventive step under PCT Article 33(3) as being obvious over Linder and Formstone and further in view of US 2013/0190360 A1 to Xu, et al. (hereinafter "Xu").

The Examiner explains that Linder and Formstone are silent as to ethoxylated alcohols having a degree of ethoxylation of from 1 to 50, and explains that this deficiency is cured by the teachings of Xu citing paragraph [0126]. The Applicant respectfully disagrees and requests reconsideration in view of the below comments.

Xu teaches "[a] *pesticidal composition containing a pyripyropene insecticide and an adjuvant*" (see Abstract). At all material time the invention of Xu includes a pyripyropene insecticide of the formula I or II. The person skilled in the art would not consider the teachings of Xu.

The mention of ethoxylation at paragraph [0126] of Xu is in particular reference to propylene oxide-ethylene oxide (PO-EO)- block alkoxylates. Paragraph [0126] provides "[p]reference is given to **PO-EO block ethoxylates** in which the ration of PO to EO (x to y) is 1:10 to 10:1, preferably 12:1 to 1:1 and in particular 2:1 to 8:1. **In this context, the degree of ethoxylation (value of y)** is generally 1 to 20, preferably 2 to 15 and in particular 2 to 10. **The degree of propoxylation (value of x)** is generally 0.5 to 30, preferably 4 to 20 and in particular 6 to 16. The overall degree of alkoxylation, i.e. the sum of EO and PO units, is generally 1.5 to 50, preferably 2.5 to 30 and in particular 8 to 20." (our emphasis added). Paragraph [0126] discloses ethoxylation and propoxylation of PO-EO block alkoxylates only. This is very specific, and there is no teaching, suggestion or motivation by Xu to ethoxylate anything other than PO-EO block ethoxylates.

Consequently, the person skilled in the art would not be motivated or occasioned by Xu. No combination of Linder, Formstone and Wu will result in the presently claimed invention since no combination of Linder and Formstone teach the invention of claim 1, but also that the claimed invention does not teach PO-EO block ethoxylates so no combination will ever result in the claimed invention of claim 7.

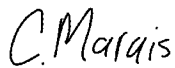
The Applicant submits that the claimed invention is both novel and inventive over the cited prior art, and includes an inventive step in the sense of Article 33(3) PCT.

Claims 1-14, 15/1, 15/13, 16/15/1, 16/15/13, 17/16/15/1, 17/16/15/13, 18/17/16/15/1, and 18/17/16/15/13 have industrial applicability as defined by PCT Article 33 (4) because the subject matter can be made or used in industry.

The Applicant thanks the Examiner this determination.

In conclusion, the Applicant submits that the claimed invention meets the patentability requirements under the PCT.

Yours faithfully



Charl Marais

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