

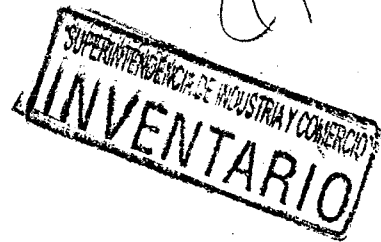


Organizacion CSA Ltda

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Digitalizacion CSA Ltda

02
265

OP



Industria y Comercio

SUPERINTENDENCIA

Delegatura de Propiedad Industrial

División de Nuevas Creaciones

PCT

SOLICITUD

PATENTE DE INVENCION

08-79639

21. EXPEDIENTE No.

54. TITULO COMPOSICION PESTICIDA

51. CLASIFICACION INTERNACIONAL

71. SOLICITANTE BAYER HEALTHCARE A.G.

DOMICILIO LEVERKUSEN, ALEMANIA

74. APODERADO JAIME EDUARDO DELGADO VILLEGAS

22. BOGOTA, D.C., JULIO 31 DE 2008

PET

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 08-079639-00000-0000

Fecha: 2008-07-31 15:12:47
Tra. 11 PATENTEI/II
Act. 411 PRESENTACION

Dep. 2020 NUECREACIONE
Eve: 378 FASENACIONALI
Folios: 28

FORMULARIO ÚNICO DE SOLICITUD DE PATENTE
PCT

ENTRADA EN FASE NACIONAL

17 sept. 2008

1 ☒ Patente de Invención		SOLICITUD DE: ☐ Patente de Modelo de Utilidad	
☒ Capítulo I		☐ Capítulo II	
2 SOLICITANTE (71)	Nombre: BAYER HEALTHCARE AG Dirección: 51368 LEVERKUSEN, ALEMANIA Nacionalidad o domicilio: LEVERKUSEN, ALEMANIA y Lugar de Constitución: LEVERKUSEN, ALEMANIA y Teléfono: Fax: E-mail:		IDENTIFICACIÓN C.C. ☐ NIT ☐ C.E. ☐ Otro ☐ Cual: _____ Número:
	3 REPRESENTANTE O APODERADO		Nombre: JAIME EDUARDO DELGADO VILLEGAS Dirección: Avda. Carrera 24 No. 37-31 Of. 202 BOGOTÁ D.C., COLOMBIA Teléfono: 2444096 Fax: 2442496 E-mail:
4 INVENTOR (ES) (72)	Nombre: EMSLIE, Forbes, Richard Dirección: Bomac Laboratories Ltd., Cnr Wiri Station Road/hobill Avenue, Po. Box 76 369, Manukau City, Auckland, Nueva Zelandia Nacionalidad o Domicilio: NUEVA ZELANDIA		
5 PCT (86) Solicitud Internacional No. PCT/EP2007/001257 Fecha: 14 - 02 - 07 Publicación Internacional No. WO 2007/093393 A2 Fecha: 23 - 08 - 07			
6 Título (54) COMPOSICIÓN PESTICIDA			
7 Clasificación internacional (51) A01N53/08; 47/34; 25/02; A01P7/00; 7/02			
8 Prioridad SI ☒ NO ☐		(33) País de Origen ZA	(32) Fecha 17/02/2006
		(31) Número de Solicitud 2006/01411	
9 Comprobante de pago No. Fecha:			
Instrucciones para el diligenciamiento del presente formulario, ver reverso de esta página.			

10

ANEXOS

☒

Comprobante de pago de la tasa de presentación de la solicitud.

☐

Documento que acredita la existencia y representación legal cuando el solicitante sea persona jurídica.

☒

Podere, si fuere el caso.

☐

Documento de cesión del inventor al solicitante o a su causante.

☐

Declaraciones

☒

Copia de la solicitud internacional (Resumen, descripción, reivindicaciones, dibujos)

☒

Traducción de la solicitud internacional al castellano. (Resumen, descripción, reivindicaciones, dibujos)

☐

Copia del examen preliminar internacional efectuado por la Autoridad Internacional de Examen Preliminar (IPEA).

☐

Traducción del examen preliminar internacional efectuado por la IPEA.

☐

De ser el caso, copia del contrato de acceso.

☐

De ser el caso, documento que acredite la licencia o autorización de uso de conocimientos tradicionales de las comunidades indígenas.

☐

De ser el caso, certificado de depósito del material biológico

☐

Arte final 12X12 cm.

☐

De ser el caso, información de otras solicitudes de patente o títulos obtenidos en el extranjero por el mismo titular o su causante, relacionadas total o parcialmente con la invención de esta solicitud.

☐

De ser el caso, modificaciones efectuadas a la solicitud internacional, Nuevas Reivindicaciones

☐

Otros: Informe de Búsqueda de Antecedentes Internacional junto con la traducción.

☒

Publicación Internacional No. WO 2007/093393 A2

FIGURA CARACTERISTICA

(I)

12

Solicito la concesión de la patente,

NOMBRE: JAIME EDUARDO DELGADO VILLEGAS

FIRMA:

Jaime Delgado
C.C. 19.270.955 Bogotá T.P. 43.308 C.S.J.

1223321
Marcas - Patentes
Modelos - Diseños
Nombres Comerciales - Enseñas
Propiedad Intelectual
Registros en el Exterior
Registros Sanitarios INVIMA - ICA
Acciones Judiciales - Administrativas
Derecho Comercial - Industrial
Asesoría - Contratos - Otros
Corresponsalia a Nivel Mundial

MDE

Mario Delgado Echeverry e Hijos Ltda.

Abogados Consultores - Marcas y Patentes

Colombia
9003
Bogotá D.C. - Colombia
Avda. 22 Park Way No. 37 - 31 Of. 202
Tels. (571) 2444096 - 3690624
Fax (571) 2442496 A.A. No. 6207
E-mail: mde@mdelaw.com

Miembros ACPI - ASIPI - AIPPI

The Undersigned José Antonio Hernández Rodríguez, citizen, adult and living in Spain, in my position of legal Representative of the company Bayer HealthCare AG with headquarters in 51368 Leverkusen Germany, which was initially incorporated at Leverkusen, Germany, grant ample an sufficient power of attorney to: JAIME EDUARDO DELGADO VILLEGAS and/or CLEMENCIA DELGADO VILLEGAS, attorneys, adults, residing in Bogotá (Colombia), so that on our behalf and representation, carry out in Colombia and in any other Countries all types of errands an especial procedures for the registration and renewal of all kinds of Product and Service trademarks, deposits of name and commercial logotipe, industrial models and drawings, invention patents, utility models, Integrated circuits, name of domain, Copyrights, plant varieties, agricultural, veterinary and sanitary registries, capacity certificates, renewal, modification, transfer, assignment and expansions and to be responsible as general attorneys, for the supervision of all matters related to industrial and Intellectual property, being empowered to present and withdraw objections, to present appeals, to request testimonies, to receive documents, to pay legal fees, to approve exploitations, to agree on transactions on trademark agreements with third parties of legal entities, to abandon action, to substitute and to carry out all the necessary actions before any administrative authority of the aforementioned purposes' in the event that such procedures shall be transferred unto a judicial field, the legal representatives are authorized to act as plaintiff or defendant before the competent authorities, having an ample power to settle, to submit to arbitration, to waive, to present appeals and all other necessary special faculties.

For that purpose, I kindly request to gran ample powers to our attorneys, who shall be able to exercise the functions independently or collectively.

The present power of attorney revokes and cancels any other previous powers of attorney given by the Company in the territory of the Colombian Republic.

Sincerely,

3371530Y Madrid
ID Card No. issued in

Please, submit to a public deed by public notary

Notarial Certificate:

The undersigned Notary Public certifies that the undersigned signature reading José Antonio Hernández Rodríguez is authentic: that signer is (Authorised signatory) of Bayer HealthCare AG and that he is empowered to grant this power, and that said Company exists and is duly organized in accordance with the laws of Leverkusen, Germany.

All the foregoing facts are know to the Notary due to him having examined the respective documents to which he, the Notary, attests.

Granted and signed at 200 on

Notary Public.

This Power of Attorney should be authenticated with the filed Notarial certificate and legalized by Apostille or by the Colombian Consulate.

Atentamente se dirige a Usted José Antonio Hernández Rodríguez, ciudadano español, mayor y vecino de Madrid, para manifestarle que en mi condición de Representante legal de la firma Bayer HealthCare AG domiciliada en 51368 Leverkusen Alemania, y constituida inicialmente en Leverkusen, Alemania, confiero poder general, amplio y suficiente a los Dres. JAIME EDUARDO DELGADO VILLEGAS, y/o CLEMENCIA DELGADO VILLEGAS, Abogados, mayores y vecinos de Bogotá, D.C. (Colombia), para que en nuestro nombre y representación adelanten en Colombia y en otros países toda clase de diligencias y procedimientos especiales para el Registro y Renovación en su Despacho, de toda clase de Marcas de Producto y Servicio, Depósitos de Nombre y Enseña Comercial, Diseños Industriales y Patentes de Invención, Patentes modelo de Utilidad, Esquemas de Circuitos integrados, Nombres de dominio, Derechos de Autor, Variedades vegetales, registros agrícolas, veterinarios y sanitarios, certificados de capacidad, renovación, modificación, traspaso y ampliación de los mismos y atiendan como Apoderados generales todo asunto referente a la Propiedad Industrial e intelectual, quedando facultados para presentar y retirar Oposiciones, interponer recursos, solicitar testimonios, recibir documentos, cancelar costos legales, probar explotaciones, aceptar transacciones, llegar a acuerdos marcarios con terceras personas o entidades jurídicas, desistir, sustituir y hacer cuanto fuere necesario ante cualquier autoridad administrativa para los fines arriba indicados; y en caso de que el procedimiento debiera pasar a conocimiento judicial, quedan facultados para actuar como demandantes o demandados ante los Jueces que sean competentes, con poder amplio, pudiendo transar, someter a árbitros, desistir, interponer recursos y con todas las demás facultades especiales que fueren necesarias.

Con éste objeto, ruego le confieran personería suficiente a nuestros Apoderados quienes podrán obrar en forma conjunta o independiente e incluso sustituir el presente poder.

Atentamente,

3371530Y Madrid
ID Card No. Rpedido en

COMO NOTARIO 71 DE ESTE CIRCULO
HAGO CONSTAR QUE ESTA COPIA
COINCIDE CON SU ORIGINAL QUE
CONFIRMO
15 JUL 2008
LUIS A. LOPEZ BARRERA
NOTARIO PUBLICO
BOGOTA

El infrascrito Notario Público certifica que la firma que antecede y dice, José Antonio Hernández Rodríguez es auténtica: que el firmante es (Firmante autorizado) de Bayer HealthCare AG que tiene facultad para otorgar este poder y que dicha compañía existe y está debidamente organizada de conformidad con las Leyes de Leverkusen, Alemania. Todos los hechos anteriores le constan por haber examinado los documentos respectivos y de todo ello da fe.

Dado y firmado en el de de 200

Notario Público.

Autenticarlo ante Notario con el lleno de la Certificación Notarial y refrendarlo por Apostilla o Consulado.

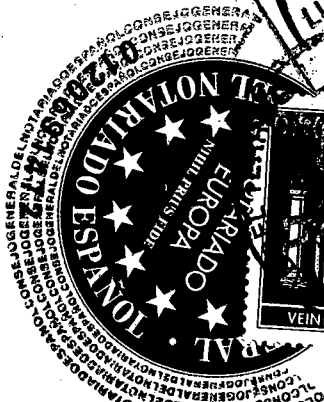
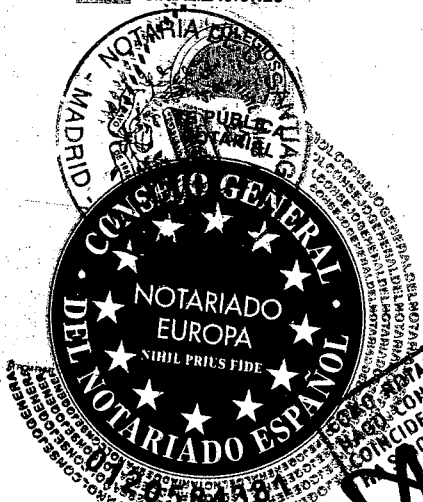
LE. //

...//GITIMACIÓN: Yo, SANTIAGO RUBIO LINIERS, Notario del Ilustre colegio de Madrid con residencia en esta Capital:-----

Conozco y considero legítima la firma que antecede de don JOSÉ ANTONIO HERNÁNDEZ RODRÍGUEZ Y que he levantado acta del presente documento con el número 900 ,de mi protocolo, a los efectos del artículo 207 del reglamento Notarial. En Madrid a siete de abril de dos mil ocho. DOY FE.=.

[Handwritten signature]

015 SELLO DE LEGITIMACIONES Y LEGALIZACIONES



NOTARIO 71 DE ESTE CIRCUITO
CONSTAR QUE ESTA FOTOCOPIA
COINCIDE CON SU ORIGINAL CON QUE
15 JUL 2008
LUIS A LOPEZ BARRERO
NOTARIO 71 ENCARGADO
BOGOTÁ D.C.

Apostille (o legalización única)
(Convention de La Haye du 5 octobre 1961)
(Real Decreto 2433/1978, de 2 de octubre)

1. País: *España*
El presente documento público
2. Ha sido firmado por **D. Santiago Rubio Liniers**
Actuando en calidad de **NOTARIO**
3. Se halla sellado / timbrado con *el de su Notaría*

CERTIFICADO

En Madrid 6. El **10 . Abril . 2008**
Por el Decano del Colegio Notarial de Madrid.
Con el número **25047**
Sello / timbre: *[Firma]*

[Handwritten signature]
Dona M^a Nieves Gonzalez de Echavarrí Diaz
Firma delegada del Decano

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

To:

BAYER HEALTHCARE AG
Law And Patents
Patents And Licensing
51368 Leverkusen
ALLEMAGNE

Date of mailing (day/month/year) 28 March 2007 (28.03.2007)	
Applicant's or agent's file reference BHC061018-WO	IMPORTANT NOTIFICATION
International application No. PCT/EP2007/001257	International filing date (day/month/year) 14 February 2007 (14.02.2007)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 17 February 2006 (17.02.2006)
Applicant BAYER HEALTHCARE AG et al	

1. By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. (If applicable) The letters "NR" appearing in the right-hand column denote a priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
3. (If applicable) An asterisk (*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b) (the priority document was received after the time limit prescribed in Rule 17.1(a) or the request to prepare and transmit the priority document was submitted to the receiving Office after the applicable time limit under Rule 17.1(b)). Even though the priority document was not furnished in compliance with Rule 17.1(a) or (b), the International Bureau will nevertheless transmit a copy of the document to the designated Offices, for their consideration. In case such a copy is not accepted by the designated Office as the priority document, Rule 17.1(c) provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
17 February 2006 (17.02.2006)	2006/01411	ZA	21 March 2007 (21.03.2007)

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. +41 22 338 82 70

Authorized officer

Agnes Wittmann-Regis

Facsimile No. +41 22 338 82 70

Telephone No. +41 22 338 74 06

Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/EP2007/001257

International filing date: 14 February 2007 (14.02.2007)

Document type: Certified copy of priority document

Document details: Country/Office: ZA
Number: 2006/01411
Filing date: 17 February 2006 (17.02.2006)

Date of receipt at the International Bureau: 21 March 2007 (21.03.2007)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse



6

Setifikaat

REPUBLIEK VAN SUID-AFRIKA

PATENTKANTOOR

DEPARTMENT VAN HANDEL EN
NYWERHEID

Certificate

REPUBLIC OF SOUTH AFRICA

PATENT OFFICE

DEPARTMENT OF TRADE
AND INDUSTRY

Hiermee word gesertifiseer dat
This is to certify that

the documents attached hereto, are true copies of the provisional Specification forming part of a patent application in the name of BAYER HEALTHCARE AG filed at the South African Patent Office under No 2006/01411 dated 17 February 2006 in terms of Section 38 (2) of the South African Patents Act.

Geteken te

PRETORIA

Signed at

in die Republiek van Suid-Afrika, hierdie

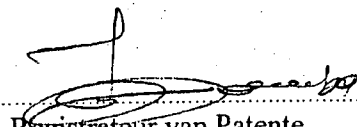
in the Republic of South Africa, this

01

dag van

December 2006

day of


Registrateur van Patente
Registrar of Patents

REPUBLIC OF SOUTH AFRICA				PATENTS ACT, 1978			
REGISTRAR OF PATENTS							
OFFICIAL APPLICATION NO.		LODGING DATE: PROVISIONAL			ACCEPTANCE DATE		
24	2006/0141	22	17 February 2006		43		
INTERNATIONAL CLASSIFICATION		LODGING DATE: COMPLETE			GRANTED DATE		
51		23					
FULL NAME(S) OF APPLICANT(S) / PATENTEE(S)							
71	BAYER AKTIENGESELLSCHAFT						
MANUSCRIPT RECEIVED APPLICANT'S OFFICE 17-03-06							
APPLICANTS SUBSTITUTED :				DATE REGISTERED			
71	Bayer HealthCare AG			17-03-06			
ASSIGNEE(S)							
71				DATE REGISTERED			
FULL NAME(S) OF INVENTOR(S)							
72	EMSLIE, Forbes Richard						
PRIORITY CLAIMED		COUNTRY		NUMBER		DATE	
N.B. Use international abbreviation for country. (See Schedule 4)		33		31		32	
TITLE OF INVENTION							
54	PESTICIDAL COMPOSITION						
ADDRESS OF APPLICANT(S) / PATENTEE(S)							
D 51368 Leverkusen Germany							
ADDRESS FOR SERVICE				REF		P15889ZA00/RJ/lr	
74	Bowman Gilfillan Inc. (John & Kernick) P O Box 785812, Sandton, 2146, Republic of South Africa 165 West Street, Sandton, Johannesburg, Republic of South Africa						
PATENT OF ADDITION NO.		DATE OF ANY CHANGE					
61							
FRESH APPLICATION BASED ON		DATE OF ANY CHANGE					

REPUBLIC OF SOUTH AFRICA
PATENTS ACT, 1978
APPLICATION FOR A PATENT AND ACKNOWLEDGEMENT OF RECEIPT
(Section 30(1) – Regulation 22)
The grant of a patent is hereby requested by the undermentioned applicant
on the basis of the present application filed in duplicate.

JONBOW
R60-00

OFFICIAL APPLICATION NO		AGENT'S REFERENCE	
21	01	P15889ZA00/RJ/lr	

FULL NAME(S) OF APPLICANT(S)	
71	BAYER AKTIENGESELLSCHAFT Healthcare Ag 17.03.06

ADDRESS(ES) OF APPLICANT(S)	
	D 51368 Leverkusen Germany

TITLE OF INVENTION	
54	PESTICIDAL COMPOSITION
THE APPLICANT CLAIMS PRIORITY AS SET OUT ON THE ACCOMPANYING FORM P2 The earliest priority claimed is	
THIS APPLICATION IS FOR A PATENT OF ADDITION TO PATENT APPLICATION NO.	
21	01
THIS APPLICATION IS A FRESH APPLICATION IN TERMS OF SECTION 37 AND BASED ON APPLICATION NO.	
21	01

THIS APPLICATION IS ACCOMPANIED BY:		
☒	1a	A single copy of a provisional specification of 4 pages.
☐	1b	Two copies of a complete specification of pages.
☐	2a	Informal drawings of sheets.
☐	2b	Formal drawings of sheets.
☐	3	Publication particulars and abstract (form P8 in duplicate).
☐	4	A copy of figure of the drawings for the abstract.
☒	5	Assignment of invention (from the inventors) or other evidence of title.
☐	6	Certified priority document(s).
☐	7	Translation of priority document(s).
☐	8	Assignment of priority rights.
☐	9	A copy of form P2 and a specification of S.A. Patent Application.
☐	10	A declaration and power of attorney on form P3.
☐	11	Request for ante-dating on form P4.
☐	12	Request for classification on form P9.
☐	13a	Request for delay of acceptance on form P4.
☐	13b	

21	01
----	----

DATED 17 February 2006

ADDRESS FOR SERVICE	
74	Bowman Gilfillan Inc. (John & Kernick) P O Box 785812, Sandton, 2146 Republic of South Africa 165 West Street, Sandton, Johannesburg, Republic of South Africa

The duplicate will be returned to the applicant's address for service as proof of lodging but is not valid unless endorsed with official stamp.

Patent Attorney for Applicant(s)	
REGISTERED OF PATENTS DESIGNS TRADE MARKS RECEIVED	
OFFICIAL DATE STAMP 2006-02	
REGISTRAR OF PATENTS REGISTRATEUR VAN PATENTE HANDELSMERKE EN OUTFIGURE	

REPUBLIC OF SOUTH AFRICA
PATENTS ACT, 1978

ASSIGNMENT OF INVENTION

OFFICIAL APPLICATION NO.		LODGING DATE		AGENT'S REFERENCE	
21	01	2006/01411	22	17 FEBRUARY 2006	P15889ZA00

FULL NAME(S) OF APPLICANT(S)	
71	BAYER AKTIENGESELLSCHAFT

FULL NAME(S) OF INVENTOR(S)	
72	FORBES RICHARD EMSCIE

EARLIEST PRIORITY CLAIMED		COUNTRY		NUMBER		DATE	
NOTE : The country must be indicated by its International Abbreviation - see Schedule 4 of the Regulations.		33		31		32	

TITLE OF INVENTION	
54	PESTICIDAL COMPOSITION

WHEREAS the undersigned is ~~have~~ the inventor~~(s)~~ in respect of the invention referred to above.

AND WHEREAS the applicant~~(s)~~ identified above has / have for good and sufficient consideration acquired the said invention from me / us.

NOW THEREFORE I / We hereby assign to the said applicant(s) :

(a) all my/~~our~~ rights in the said invention including the right to apply for and obtain Letters Patent in his/~~her~~/its own name in any country in the world.

SIGNED AT MANURAU - AUCKLAND DATE 06/06/2005

.....
.....
.....
.....

NAME(S)

R. R. Emshie

.....
.....
.....
.....

SIGNATURE(s) - (No legalization required)

R. R. Emshie

- 2006/01411

10

BOWMAN GILFILLAN INC. (JOHN & KERNICK)

Form P.6

REPUBLIC OF SOUTH AFRICA

PATENTS ACT, 1978

PROVISIONAL SPECIFICATION
(Section 30(1) – Regulation 27)

OFFICIAL APPLICATION NO		LODGING DATE	AGENT'S REFERENCE
21	01 2006/01411	22 17 February 2006	P15889ZA00/RJ/lr
FULL NAME(S) OF APPLICANT(S)			
71	BAYER AKTIENGESELLSCHAFT		
FULL NAME(S) OF INVENTOR(S)			
72	EMSLIE, Forbes Richard		
TITLE OF INVENTION			
54	PESTICIDAL COMPOSITION		

PESTICIDAL COMPOSITION

FIELD OF THE INVENTION

This invention relates to a pesticidal composition.

BACKGROUND TO THE INVENTION

Many compounds are available for pesticidal applications in animals. In many instances, especially for the control of ticks, it is desirable to have a pour on composition. It is desirable for such compositions to have good knockdown and persistency. At present, however, most available compositions have one or the other of these qualities, seldom both.

OBJECT OF THE INVENTION

It is an object of this invention to provide a pesticidal composition which will at least partially alleviate the abovementioned problem.

SUMMARY OF THE INVENTION

In accordance with this invention there is provided a pesticidal composition characterised in that the active ingredients include flumethrin and fluazuron.

Further features of the invention provide for the composition to contain 2 to 20 g/l flumethrin and 10 to 40 g/l fluazuron, preferably 10 g/l flumethrin and 25 g/l fluazuron.

Still further features of the invention provide for the composition to include a carrier and adjuvants; for these to possibly include N methylpyrrolidone, dipropylene glycol monomethyl ether and a dye; and for there to be 218.76 g/l N methylpyrrolidone, 721.48 g/l dipropylene glycol monomethyl ether and 0.1 g/l patent blue dye.

The following example illustrates one embodiment of a pesticidal composition made in accordance with the invention.

EXAMPLE 1

A pesticidal composition is prepared by admixing the following compounds:

Flumethrin	10 g/l
Fluazuron	25 g/l
N methylpyrrolidone	218.76 g/l
Dipropylene glycol monomethyl ether	721.48 g/l
Patent blue dye	0.1 g/l

2006/014171

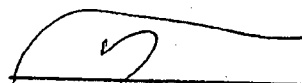
13

The dipropylene glycol monomethyl ether used was that sold under the trade name "Dowanol DPM". Also, a dye is optional and where it is not used the dipropylene glycol monomethyl ether is made up to volume.

The composition so obtained was used as a pour on product against ticks with an application dose of used flumethrin 1 mg/kg, fluazuron 2.5 mg/kg. It has been found that the composition provides a better tick knockdown than flumethrin by itself and longer persistency than fluazuron by itself. The composition is thus superior to either of these two known products used individually indicating an unexpected synergistic effect. This mechanism of this synergistic effect is not yet understood.

It will be appreciated that many other embodiments of a pesticidal composition exist which fall within the scope of the invention, particularly as regards the concentration of the active compounds and the excipients used. Any suitable carriers and adjuvants can be used in suitable concentrations.

DATED THIS 17th DAY OF FEBRUARY 2006.


BOWMAN GILFILLAN INC.
(JOHN & KERNICK)
FOR THE APPLICANT

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 August 2007 (23.08.2007)

PCT

(10) International Publication Number
WO 2007/093393 A2

(51) International Patent Classification:

A01N 53/08 (2006.01) A01P 7/00 (2006.01)
A01N 47/34 (2006.01) A01P 7/02 (2006.01)
A01N 25/02 (2006.01)

(21) International Application Number:

PCT/EP2007/001257

(22) International Filing Date:

14 February 2007 (14.02.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2006/01411 17 February 2006 (17.02.2006) ZA

(71) Applicant (for all designated States except US): **BAYER HEALTHCARE AG** [DE/DE]; 51368 Leverkusen (DE).

(72) Inventor; and

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(54) Title: PESTICIDAL COMPOSITION

(57) Abstract: This invention relates to a pesticidal composition against ticks, in particular on cattle, having flumethrin and flumazuron as its active ingredients. In addition to the above active ingredients the composition may include N-methylpyrrolidone, dipropylene glycol monomethyl ether and, optionally, a dye as a carrier and adjuvants.

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PESTICIDAL COMPOSITION**FIELD OF THE INVENTION**

This invention relates to a pesticidal composition.

5

BACKGROUND TO THE INVENTION

Many compounds are available for pesticidal applications in animals. In many instances, especially for the control of ticks, it is desirable to have a pour on composition. It is desirable for such compositions to have good knockdown and extended persistency. At present, however, most available compositions have one or the other of these qualities, seldom both.

10

OBJECT OF THE INVENTION

It is an object of this invention to provide a pesticidal pour on composition which will alleviate the abovementioned problem.

15

SUMMARY OF THE INVENTION

In accordance with this invention there is provided a pesticidal pour on composition characterised in that the active ingredients include flumethrin and fluazuron.

Further features of the invention provide for the composition to contain 9 to 11 g/l flumethrin and 20 to 40 g/l fluazuron, preferably 10 g/l flumethrin and 25 g/l fluazuron.

20

Still further features of the invention provide for the composition to include a carrier and adjuvants; for these to possibly include N-methylpyrrolidone, dipropylene glycol monomethyl ether and optionally a dye; and for there to be 196 to 241 g/l, preferably 210 to 230 g/l, particularly preferably 215 to 225, in particular about 218.8 g/l N-methylpyrrolidone; 649 to 794 g/l, preferably 670 to 771 g/l, particularly preferably 700 to 740 g/l, in particular about 721 g/l dipropylene glycol monomethyl ether and, optionally, 0.09 to 0.11 g/l, in particular 0.10 g/l patent blue dye

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The following example illustrates one embodiment of a pesticidal pour on composition made in accordance with the invention.

EXAMPLE 1

A pesticidal pour on composition is prepared by admixing the following compounds:

Flumethrin*	10,0 g/l
Fluazuron*	25,0 g/l
5 N methylpyrrolidone	218,76 g/l
Dipropylene glycol monomethyl ether	721,48 g/l
Patent blue dye	0,1 g/l

*quantities assuming 100% potency of Flumethrin and Fluazuron

- 10 Where potency adjustment is necessary the dipropylene glycol monomethyl ether is utilised to compensate for volumetric changes. The dipropylene glycol monomethyl ether used was that sold under the trade name "Dowanol DPM". A dye is optional and where it is not used the dipropylene glycol monomethyl ether is made up to volume.
- 15 The composition so obtained can be used as a pour on product against ticks on animals, in particular cattle. A preferred application dose, in particular for cattle, is 1 ml/10 kg which equates to flumethrin 0.9 to 1.1 mg/kg, preferably 1 mg/kg; fluazuron 2 to 4 mg/kg, preferably 2.5 mg/kg. Other application doses may be suitable depending on the situation in the respective case. It has been found that the composition provides a comparable to improved
- 20 tick knockdown and persistency than flumethrin by itself and longer persistency than fluazuron by itself against *Rhipicephalus (Boophilus) decoloratus* blue ticks. The increased persistency was found to be at least 35 days against pyrethroid resistant *Rhipicephalus (Boophilus) decoloratus* blue ticks, and at least 60 days against susceptible *Rhipicephalus (Boophilus) decoloratus* blue ticks, which was longer than the 48 days demonstrated against
- 25 susceptible ticks for fluazuron when used alone. The composition is thus superior to either of these two known products used individually indicating an unexpected synergistic effect, as the dose rate of the invention represents a 16.7 % decrease in the application rate of fluazuron. This mechanism of this synergistic effect is not yet understood.
- 30 It will be appreciated that many other embodiments of a pesticidal composition exist which fall within the scope of the invention, particularly as regards the concentration of the active compounds and the excipients used. Any suitable carriers and adjuvants can be used in suitable concentrations.

CLAIMS

1. A pesticidal pour on composition characterised in that the active ingredients include flumethrin and fluazuron.
- 5 2. A pesticidal pour on composition as claimed in claim 1 characterised in that the composition contains 9 to 11 g/l flumethrin and 20 to 40 g/l fluazuron.
- 10 3. A pesticidal pour on composition as claimed in claim 2 characterised in that the composition contains 10 g/l flumethrin and 25 g/l fluazuron.
4. A pesticidal pour on composition as claimed in any one of the preceding claims characterised in that the composition also includes a carrier and/or adjuvants.
- 15 5. A pesticidal pour on composition as claimed in claim 4 characterised in that the carrier and/or adjuvants are selected from the group consisting of: N-methylpyrrolidone, dipropylene glycol monomethyl ether and a dye.
- 20 6. A pesticidal pour on composition as claimed in claim 5 characterised in that it contains 196 to 241 g/l N-methylpyrrolidone.
7. A pesticidal pour on composition as claimed in claim 5 or claim 6 characterised in that it contains 649 to 794 g/l dipropylene glycol monomethyl ether.
- 25 8. A pesticidal pour on composition as claimed in one of claims 5 to 7 characterised in that it contains 0.09 to 0.11 g/l patent blue dye.
- 30 9. A pesticidal pour on composition as claimed in claims 1 to 8 that produces, comparable to currently available similar compositions, improved knockdown and improved persistency against *Rhipicephalus (Boophilus) decoloratus* blue ticks on cattle.

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COMPOSICIÓN PESTICIDA

CAMPO DE LA INVENCION

Esta invención se refiere a una composición pesticida.

ANTECEDENTES DE LA INVENCION

- 5 Están disponibles muchos compuestos para aplicaciones pesticidas en animales. En muchos casos, especialmente para el control de garrapatas, es deseable tener una composición para vertido. Es deseable que dichas composiciones tengan un buen efecto fulminante y persistencia prolongada. En la actualidad, sin embargo, la mayor parte de las composiciones disponibles
- 10 tienen una u otra de estas cualidades, pero rara vez ambas.

OBJETO DE LA INVENCION

Es un objeto de esta invención proporcionar una composición pesticida para vertido que palie el problema anteriormente mencionado.

RESUMEN DE LA INVENCION

- 15 De acuerdo con esta invención, se proporciona una composición pesticida para vertido caracterizada porque los principios activos incluyen flumetrina y fluazurón.

- Otras características de la invención proporcionan que la composición contenga de 9 a 11 g/l de flumetrina y de 20 a 40 g/l de fluazurón,
- 20 preferiblemente 10 g/l de flumetrina y 25 g/l de fluazurón.

- Otras características adicionales de la invención proporcionan que la composición incluya un vehículo y adyuvantes; que éstos incluyan posiblemente N-metilpirrolidona, monometil éter de dipropilenglicol y opcionalmente un colorante, y que éstos sean de 196 a 241 g/l, preferiblemente
- 25 de 210 a 230 g/l, particularmente preferible de 215 a 225, en particular

aproximadamente 218,8 g/l de N-metilpirrolidona; de 649 a 794 g/l, preferiblemente de 670 a 771 g/l, particularmente preferiblemente de 700 a 740 g/l, en particular aproximadamente 721 g/l de monometil éter de dipropilenglicol y, opcionalmente, de 0,09 a 0,11 g/l, en particular 0,10 g/l de colorante azul
5 patente.

El siguiente ejemplo ilustra una forma de realización de una composición pesticida para vertido fabricada de acuerdo con la invención.

EJEMPLO 1

Se prepara una composición pesticida para vertido mezclando los
10 siguientes compuestos:

Flumetrina*	10,0 g/l
Fluazurón*	25,0 g/l
N-metilpirrolidona	218,76 g/l
Monometil éter de dipropilenglicol	721,48 g/l
Colorante azul patente	0,1 g/l

*cantidades que suponen el 100% de potencia de flumetrina y fluazurón

Si es necesario el ajuste de potencia, el monometil éter de dipropilenglicol se utiliza para compensar los cambios volumétricos. El monometil éter de dipropilenglicol usado fue el comercializado con el nombre
15 comercial "Dowanol DPM". El colorante es opcional y, cuando no se usa, el monometil éter de dipropilenglicol completa el volumen.

La composición así obtenida se puede usar como un producto para vertido contra garrapatas en animales, en particular ganado. Una dosis de aplicación preferida, en particular para ganado, es de 1 ml/10 kg lo que

corresponde a flumetrina de 0,9 a 1,1 mg/kg, preferiblemente 1 mg/l; fluazurón de 2 a 4 mg/kg, preferiblemente 2,5 mg/kg. Otras dosis de aplicación pueden ser adecuadas dependiendo de la situación en el caso respectivo. Se ha encontrado que la composición proporciona un efecto fulminante en garrapatas de comparable a mejorado y una persistencia que la flumetrina por sí misma y una persistencia más larga que fluazurón por sí mismo frente a garrapatas azules *Rhipicephalus (Boophilus) decoloratus*. Se encontró que la persistencia incrementada era de al menos 35 días frente a garrapatas azules *Rhipicephalus (Boophilus) decoloratus* resistentes a piretroides y de al menos 60 días frente a garrapatas azules *Rhipicephalus (Boophilus) decoloratus* susceptibles, que es superior a los 48 días demostrados frente a garrapatas susceptibles a fluazurón cuando se usa en solitario. Por tanto, la composición es superior a cualquiera de estos dos productos conocidos usados individualmente, indicando un efecto sinérgico inesperado, ya que la tasa de dosis de la invención representa una disminución del 16,7% en la tasa de aplicación de fluazurón. Este mecanismo de este efecto sinérgico no se comprende todavía.

Se apreciará que muchas otras formas de realización de una composición pesticida existente caen dentro del alcance de la invención, particularmente en relación con la concentración de los compuestos activos y los vehículos usados. Puede usarse cualquier vehículo y adyuvante adecuado en las concentraciones adecuadas.

Habiendo descrito la invención como antecede, se declara como propiedad lo contenido en las siguientes:

REIVINDICACIONES

5

1. Una composición pesticida para vertido caracterizada porque los principios activos incluyen flumetrina y fluazurón.
2. Una composición pesticida para vertido según la reivindicación 1,
10 caracterizada porque la composición contiene de 9 a 11 g/l de flumetrina y de 20 a 40 g/l de fluazurón.
3. Una composición pesticida para vertido según la reivindicación 2, caracterizada porque la composición contiene 10 g/l de flumetrina y 25 g/l de
15 fluazurón.
4. Una composición pesticida para vertido según una cualquiera de las reivindicaciones precedentes caracterizada porque la composición también incluye un vehículo y/o coadyuvantes.
- 20 5. Una composición pesticida para vertido según la reivindicación 4, caracterizada porque el vehículo y/o adyuvantes se seleccionan del grupo que está constituido por: N-metilpirrolidona, monometil éter de dipropilenglicol y un colorante.

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6. Una composición pesticida para vertido según la reivindicación 5, caracterizada porque contiene de 196 a 241 g/l de N-metilpirrolidona.
7. Una composición pesticida para vertido según la reivindicación 5 o la
5 reivindicación 6, caracterizada porque contiene de 649 a 794 g/l de monometil éter de dipropilenglicol.
8. Una composición pesticida para vertido según una de las
10 reivindicaciones 5 a 7, caracterizada porque contiene de 0,09 a 0,11 g/l de colorante azul patente.
9. Una composición pesticida para vertido según las reivindicaciones 1 a 8 que produce, en comparación con las composiciones similares actualmente disponibles, un efecto fulminante mejorado y persistencia mejorada frente a
15 garrapatas azules *Rhipicephalus (Boophilus) decoloratus* en el ganado.

RESUMEN

Esta invención se refiere a una composición pesticida contra garrapatas, en particular en ganado, que tiene flumetrina y fluazurón como principios activos. Además de los principios activos anteriores, la composición puede

5 incluir N-metilpirrolidona, monometil éter de dipropilenglicol y, opcionalmente, un colorante como vehículo y adyuvantes.

27

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Resumen:

Esta invención se refiere a una composición pesticida contra garrapatas, en particular en ganado, que tiene flumetrina y fluazurón como principios activos. Además de los principios activos anteriores, la composición puede incluir N-metilpirrolidona, monometil éter de dipropilenglicol y, opcionalmente, un colorante como vehículo y adyuvantes.

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MARIO DELGADO ECHEVERRY	CONSIGNACION	BANCO DE BOGOTA	062754387	2272616	19/06/2008	9,172,000.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01	SOLICITUDES	
		1 TRAMITES DE SOL. DE PATENTE DE IN	501,000.00
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MODELO DE UTILIDAD []

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