

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO  
**NO. 07-029889-00002-0000**  
 Fecha: 2007-08-08 15:47:14 Cod 2320 NULCREACION  
 Tom. 11 PATENTEYII Eje: 378 FASE-NACIONAL  
 Agi. 444 RESPUESTAREQUE Folios: 16

**"0641 K-80905-709-1 USA:**

64

TRADUCCION OFICIAL N° 2703073 del español al inglés efectuada el 02 de agosto de 2006 por Jaime Armando Garavito Burgos, c.c. N° 19.130.702 de Bogotá, Traductor e Intérprete Oficial según Resolución N° 034 de enero 11 de 1983 expedida por el Ministerio de Justicia de la República de Colombia

**CESIÓN DE INVENCION A E.I. DU PONT DE NEMOURS AND COMPANY**

**APOSTILLA**

1. País: Estados Unidos de América  
Este documento público
2. Ha sido firmado por Judy H. Foraker
3. Quien actúa en calidad de Notario Público del Estado de Delaware
4. Lleva el sello de Judy H. Foraker, Notario Público, Delaware

**Certificado**

5. En Dover, Delaware
6. El décimo segundo día de marzo de 2007 A.D.
7. Por el Secretario de Estado, Departamento de Estado de Delaware
8. N° 0310177
9. Sello (Aparece adherido sello dorado)
10. Firma (firmado) Harriet Smith Windsor, Secretario de Estado

*Jaime A. Garavito B.*  
**JAIME A. GARAVITO B.**  
TRADUCTOR E INTERPRETE OFICIAL  
Seg. 034 de Enero 11 de 1983  
MINISTERIO DE JUSTICIA

**CESIÓN**

Texto en inglés y en español mediante el cual Stephen Ray FOOR cede a E.I. du Pont de Nemours and Company, domiciliada en Delaware, Estados Unidos de América, todos sus derechos, título e interés sobre su invención tal como describe en:

00047

05

**MEZCLAS FUNGICIDAS DE DERIVADOS DE TIFENO**

en lo que concierne a la República de Colombia.

Lugar y fecha: Newark, Delaware

Marzo 5, 2007

[Firmado]

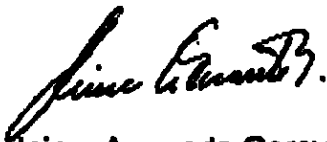
Stephen Ray FOOR**JAIME A. GARAVITO B**TRADUCTOR E INTERPRETE OFICIAL  
Por 034 de Enero 11 de 1983  
MINISTERIO DE JUSTICIAEstados Unidos de AméricaEstado de DelawareCondado de New Castle)  
)  
)  
)  
)**Declaración Juramentada**

Hoy 05 de marzo de 2007, compareció personalmente ante mí Stephen Ray FOOR, a quien conozco y de quien doy fe se trata de la persona descrita en el anterior instrumento y quien suscribió el mismo y reconoció ante mí haberlo suscrito.

[Firmado] Judy H. Foraker, Notario Público

[Aparece adherido sello dorado]

La anterior es traducción fiel y completa de la cual se deja copia en esta oficina para su confrontación.

**Jaime Armando Garavito Burgos**

c.c. N° 19.130.702 de Bogotá

Traductor e Intérprete Oficial según Resolución N° 034 de enero 11 de 1983 expedida por el Ministerio de Justicia

BOGDM5 # 73740

# Apostille

nnnnn

(Convention de La Haye du 5 Octobre 1961)

1. Country: United States of America

This public document:

2. has been signed by Judy H. Foraker

3. acting in the capacity of Notary Public of the State of Delaware

4. bears the seal/stamp of Judy H. Foraker, Notary Public, Delaware

Certified

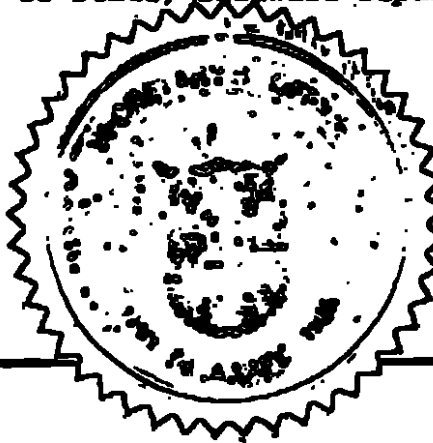
5. at Dover, Delaware

6. the twelfth day of March, A.D. 2007

7. by Secretary of State, Delaware Department of State

8. No. 0310177

9. Seal/Stamp:



*Judith H. Foraker*  
Secretary of State

ASSIGNMENTCESION

Stephen Ray FOOR

Stephen Ray FOOR

by means of this document assign to

por medio de la presente cedo (cedemos) a

E. I. du Pont de Nemours and Company

E. I. du Pont de Nemours and Company

a corporation organized under the laws of

una corporación organizada bajo las leyes de

Delaware

Delaware

domiciled in

domiciliada en

1007 Market Street  
Wilmington, Delaware 19898  
United States of America1007 Market Street  
Wilmington, Delaware 19898  
Estados Unidos de América(hereinafter referred to as the "ASSIGNEE"),  
all my (our) rights, title and interest in and to my  
(our) invention for a new and useful  
improvement entitled and as fully set forth and  
described in:(de ahora en adelante el "CESIONARIO"),  
todos mis (nuestros) derechos, título e interés  
sobre mi (nuestra) invención tal como describe  
en:FUNGICIDAL MIXTURES OF  
THIOPHEN DERIVATIVEMEZCLAS FUNGICIDAS DE DERIVADOS DE  
TIFENO

so far as the Republic of Colombia is concerned.

en lo que concierne a la República de Colombia.

Place: Newark, DELugar y fecha: Newark, DEDate: March 5, 20075 de marzo de 2007  
Stephen Ray FOOR

LEGALIZATION REQUIRED

United States of America

State of

Delaware

ss.

1170916

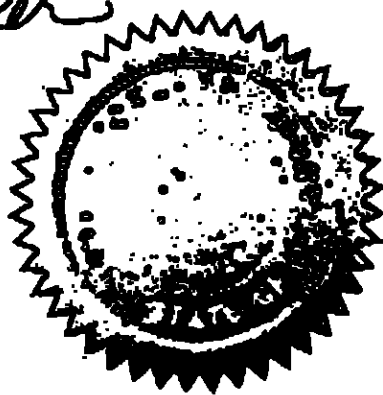
County of

New Castle

On this 5<sup>th</sup> day of March, 2007, personally appeared  
before me Stephen Bay Foor

to me known and known to me to be the individual described in and who executed the  
foregoing instrument, and who acknowledged to me that he executed the same.

Judy H. Foraker  
Notary Public



7. 1257/12. 252.  
Dont 13716



mmmm 09  
POD- 3985

TRADUCCIÓN OFICIAL N° 120407 al español de un documento escrito en inglés, efectuada por Jaime Armando Garavito Burgos, c.c. N° 19.130.702 de Bogotá, Traductor e Intérprete Oficial Inglés-español-Inglés según Resolución N° 034 de enero 11 de 1983 expedida por el Ministerio de Justicia de la República de Colombia

Poder otorgado por E.I. DuPont De Nemours And Company

APOSTILLA

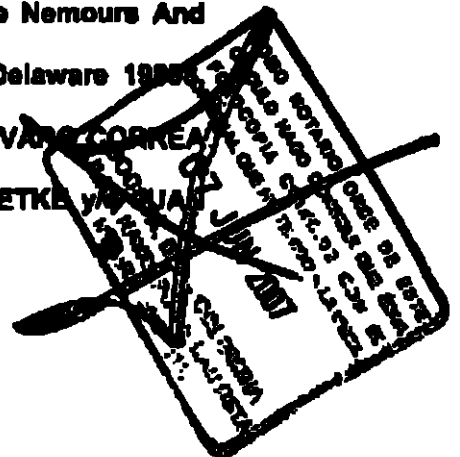
1. País: Estados Unidos de América  
Este documento público
2. Ha sido firmado Colleen A. Taylor
3. Quien actúa en calidad de Notario Público del Estado de Delaware
4. Lleva el sello de Colleen A. Taylor, Notario Público del Estado de Delaware

Certificado

*Jaime A. Garavito B.*  
JAIIME A. GARAVITO B.  
TRADUCTOR E INTERPRETE OFICIAL  
POR 034 LA 0000 11 de 1983  
MINISTERIO DE JUSTICIA

5. En Dover, Delaware
6. El día dos de abril de 2007 A.D.
7. Por el Secretario de Estado, Departamento de Estado de Delaware
8. N° 0312288
9. Sello (Aparece adherido sello dorado)
10. Firma (firmado) Harriet Smith Windsor, Secretario de Estado

Texto en inglés y en español mediante el cual, E.I. DuPont De Nemours And Company, domiciliada en 1007 Market Street, Wilmington, Delaware 19801, Estados Unidos de América, por el presente otorga poder a ÁLVARO CORREA ORDÓÑEZ y/o OLGA GEORGETTE OTERO y/o RICARDO METKE y/o PABLO CONCHA



miriam CP

de la firma Raisbeck, Lara, Rodríguez & Rueda, miembros de Baker & McKenzie, domiciliada en la Avenida 82 N° 10-62, piso 6, Bogotá, Colombia.

Dado y suscrito el 21 de marzo de 2007

[Firmado] Miriam D. Macconahay, Subsecretaria, Junta de Patentes

CERTIFICACIÓN NOTARIAL. Texto en inglés y en español mediante el cual el suscrito Notario certifica la existencia legal de la sociedad E.I. DuPont De Nemours And Company, así como las funciones y firma de su representante autorizado Miriam D. Macconahay, Subsecretaria, Junta de Patentes, para efectos de lo cual se ha basado en: [Aparece al final, antes de la firma del notario, el siguiente texto: "Certifico que el objeto para el cual se otorga este instrumento se encuentra dentro del alcance de los objetos o actividades de la mencionada sociedad de acuerdo con el Acta de Constitución expedida en 1915 y/o los Estatutos expedidos en la ciudad de Wilmington, Delaware y fechados septiembre 8, 1915 los cuales he visto. Doy fe.

[Firmado] Colleen A. Taylor, Notario Público

[Aparece sello notarial realizado]

*Jaime A. Garavito*  
JAIME A. GARAVITO  
TRADUCTOR E INTERPRETE OFICIAL  
POR 034 de Enero 11 de 1983  
MINISTERIO DE JUSTICIA

La anterior es traducción fiel y completa de la cual se deja copia en esta oficina para su confrontación.

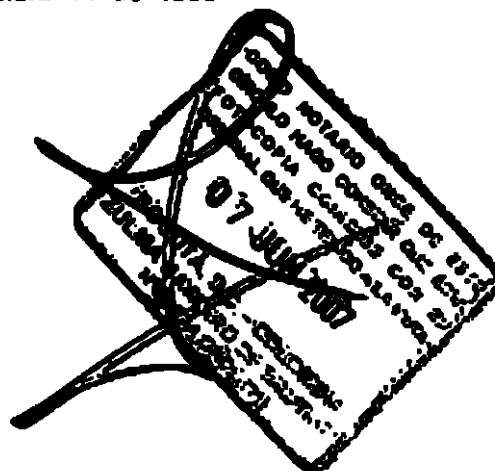
*Jaime A. Garavito*

Jaime Armando Garavito Burgos

c.c. N° 19.130.702 de Bogotá

Traductor e Interpreté Oficial según Resolución N° 034 de enero 11 de 1983 expedida por el Ministerio de Justicia

BOGDM5 # 75252



# Apostille

(Convention de La Haye du 5 Octobre 1961)

1. Country: United States of America

This public document:

2. has been signed by Colleen A. Taylor

3. acting in the capacity of Notary Public of the State of Delaware

4. bears the seal/stamp of Colleen A. Taylor, Notary Public, Delaware

**Certified**

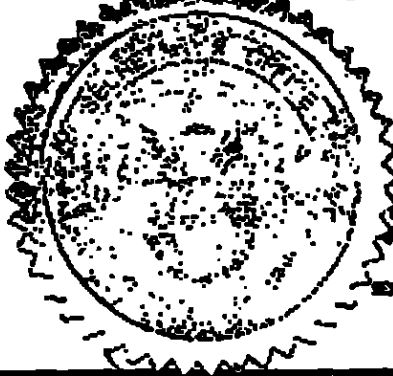
5. at Dover, Delaware

6. the second day of April, A.D. 2007

7. by Secretary of State, Delaware Department of State

8. No. 0312288

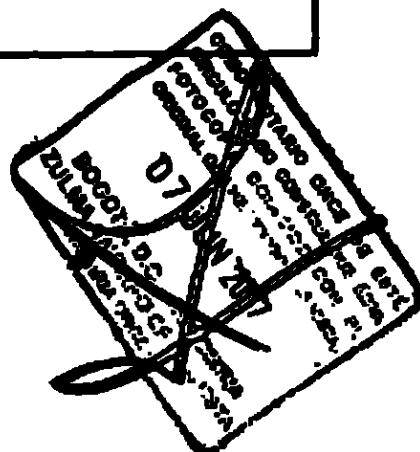
9. Seal/Stamp:



10. Signature:

*Daniel Smith Windsor*

Secretary of State



[illegible]

**Rainbow, Linn, Rodriguez & Poretsky**  
**At 2250 - 22 6th Floor**  
**Spokane, Columbia**

આત્મ, આત્મ સંસ્કાર, આત્મ  
સંસ્કાર, આત્મ સંસ્કાર, આત્મ  
સંસ્કાર, આત્મ સંસ્કાર, આત્મ  
સંસ્કાર, આત્મ સંસ્કાર, આત્મ

**POWER OF ATTORNEY**

**Is assigned**

**El DuPont De Nemours And Company**

**ਦੇਵਗੰਜ਼ੀਲਾਹੁ ਨਾ**

1407 Market Street, Wilmington, Delaware 19899  
United States of America

**Wiederum: Das ist bereits möglich und**

ALVARO CORREA-ORDOÑEZ and/or  
OLGA GUINIKYTIE OTERO and/or  
RICARDO NIETKE and/or  
JILAN PABLO CONCELA

with domicile in Ar. 22 Nos. 10 - 42, 6th Court, of Bogotá D. C., Colombia, a full and sufficient power of attorney to obtain the protection of my (we) industrial property and against the unfair competition, for which purpose I (we) authorize the said attorney to represent me (us) before any authorities or persons, with or without jurisdiction, specially those administrative, administrative conciliatory and judicial, as well as before Arbitration Court, in all matters concerning the following: a) Obtaining of patents, utility models, industrial designs, integrated circuits, layout-designs and verbal variation; the registration of trademarks, denominations of origin, successional names, trade names, slogans and domain names; its renewal, maintenance, change of name or domicile, voluntary cancellation; and the registration of licenses of use of the above rights; b) Processes of protection to the trademark, unfair competition, appellations, cancellations, nullity, precautionary injunctions, infringement, granting of licenses, with maintenance, the protection of trade secrets, and in general the civil, penal, or administrative processes relating to these rights. And that in all the above matters they may subdelegue this Power of Attorney, complete, exclusive, without the limit of the time, place, manner, scope, region, and fully acts done by representatives without a power of attorney.

I hereby certify all actions previously taken on behalf of this company by the aforementioned attorneys with respect to the undersigned matters.

There are no subscriptions to

Page 1 of 1

**Signature of the person lending the money**

*Miriam D. Mesconsky*  
Miriam D. Mesconsky  
Assistant Secretary - Polling Board

**WONKE DE AGUADO**

**1. Բնութագրի միջանուն.**

**P.T. DuPort Inc. Nemours And Company**

**သောတိယ** ၁၈

**1007 Market Street, Wilmington, Delaware 19898**  
**Unión Unida de América**

**declara que el personal que atorga el**

ALVARO CORREA-DEPOSUEZ yto  
OLGA (M) MLETTE OTERO plu  
RICARDO MEYKE yti  
JUAN FANJA CONCHA

con domicilio en la Av. 82 No. 30 — 62 Pto 6 en Bogotá D. C., Colombia, por el especial amplitud y suficiencia, para obtener la protección de sus (nuestra) propiedad industrial y sustraer la explotación exclusiva, a cuyo efecto autoriza (nuestro) a los dichos apoderados por que sus (nos) representen ante cualquier autoridad o personas, ajenas o no jurisdiccional, especialmente ante las del orden administrativo, gubernamentales-administrativo y judicial, así como los tribunales de arbitramento, en todo lo concerniente a los siguientes asuntos: a) Obtención de patentes de invención, modelos de utilidad, diseños industriales, esquemas de banda de circuitos integrados y variedades vegetales; el empleo de marcas, denominaciones de origen, nombres comerciales, nombres, marcas comerciales y nombres de dominio; su renovación, impago, cambio de nombre o domicilio, cancelación voluntaria; y el registro de marcas de uso de esos derechos; b) Los procesos para la protección del patentador, infracción de los derechos, oposiciónes, cancelaciones, nulidad, nulidad, nulidad, nulidad, nulidad, nulidad, nulidad de marcas, la tutela, la protección de marcas industriales, y en general procesos civiles, penales, administrativos relacionados con estos derechos. Y para que en todos los estados antes mencionados, puedan asistir este mandado, compare, compare, compare, compare los letrados del caso, desde, desde, desde, desde, y realizar los actos de acciones judiciales.

Igualmente, recibí todo lo que me llegó hasta el momento en los últimos meses, por cualquiera de los medios que me indicaron y se me comunicó de una sociedad.

**Deeds y Guebara en**

A los 21 días del mes de Abril de 2007

### Forma de la persona que firma el Fidejussor

[illegible]

93

nmmt

[REDACTED]

**NOTARIAL CERTIFICATION**

**CERTIFICACION NOTARIAL**

On this 21<sup>st</sup> day of March  
2007, the undersigned Notary

A las 21 días del mes de Marzo  
de 2007, el suscrito Notario

**CERTIFIES**

**DA FE**

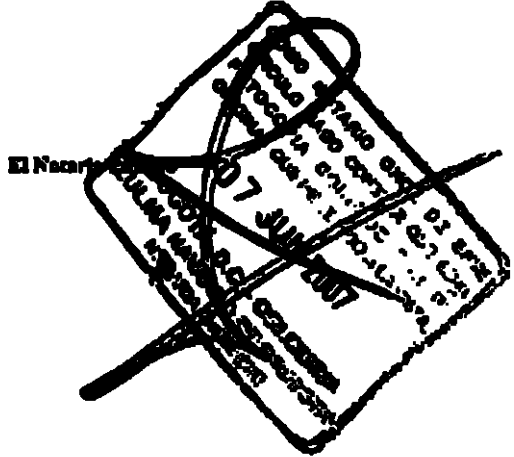
1. That Marian D. McConnahey  
of legal age and domiciled in  
1964 Lakeview Road, Wilmington, DE 19805, USA  
as his based on the foregoing document.
2. That the grantor is to me personally known and that he/she has legal capacity to execute the instrument.
3. That the grantor has executed the foregoing document as  
Assistant Secretary - Patent Board  
of the judicial person E.I DuPont De Nemours And Company  
having its home office in  
1007 Market Street, Wilmington, Delaware 19898  
United States of America  
is duly organized, has present legal existence and that the purposes for which the power of attorney is granted are within the scope of its corporate purposes.
3. That the grantor has in fact the referred to authority and that his/her representation is legal.
6. That I have based certifications 3, 4 and 5 above on the following authentic documents for each purpose exhibited to me and which I mention specifically, giving their dates and their origin or source:

1. Que Marian D. McConnahey  
mayor y domiciliado en  
1964 Lakeview Road, Wilmington, DE  
19805 Estados Unidos de América  
suscribió de su puño y letra el documento que antecede.
2. Que conozco al otorgante y que éste tiene capacidad legal para el otorgamiento.
3. Que el otorgante ha escrito el referido documento en su carácter de  
Subsecretario- junta de patentes  
de la persona jurídica E.I DuPont De Nemours And Company  
de la persona jurídica E.I DuPont De Nemours And Company  
con sede en  
1007 Market Street, Wilmington, Delaware 19898  
United States of America  
está legalmente constituida, que tiene existencia legal actual y que el acto para el cual se otorga el poder está comprendido entre los que constituyen su objeto social.
3. Que el otorgante tiene efectivamente la representación que ostenta y que ésta es legítima.
6. Que he basado las certificaciones 3, 4 y 5 anteriores en los siguientes documentos auténticos que al efecto se me exhibieron y que menciono específicamente con expresión de sus fechas y de su origen o procedencia:

I certify that the purposes for which said instrument is granted are within the scope of the objects or activities of said corporation, in accordance with the Act of Incorporation issued in 1915 and/or the By-Laws issued in the City of Wilmington, Delaware and dated September 8, 1915 which both I have seen, I attest.

Certifico que el objeto por el cual este instrumento es para llevar a cabo las actividades de la compañía de acuerdo con el acta de constitución de fecha 1915 y estatutos en la ciudad de Wilmington, Delaware, de fecha septiembre 8, 1915 que los dos he visto. Doy fe.

Callie C. T. Jr.  
Notary Public



00012 04

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

|                                                                                                                                   |                                                                                     |                                                                         |                  |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------|
| Applicant's or agent's file reference<br><b>BAD341PCT</b>                                                                         | <b>FOR FURTHER ACTION</b>                                                           |                                                                         | See item 4 below |
| International application No.<br><b>PCT/US2005/034254</b>                                                                         | International filing date (day/month/year)<br><b>27 September 2005 (27.09.2005)</b> | Priority date (day/month/year)<br><b>27 September 2004 (27.09.2004)</b> |                  |
| International Patent Classification (8th edition unless older editions indicated)<br>See relevant information in Form PCT/ISA/237 |                                                                                     |                                                                         |                  |
| Applicant<br><b>E.I. DUPONT DE NEMOURS AND COMPANY</b>                                                                            |                                                                                     |                                                                         |                  |

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

|                                     |              |                                                                                                                                                                 |
|-------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | Box No. I    | Items of the report                                                                                                                                             |
| <input type="checkbox"/>            | Box No. II   | Priority                                                                                                                                                        |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability                                                                |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention                                                                                                                                      |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI   | Certain documents cited                                                                                                                                         |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application                                                                                                                |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application                                                                                                           |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 43bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

|                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                  |                                                                      |                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland<br><br>Facsimile No. +41 22 338 82 70<br>Form PCT/111/373 (January 2004) | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Date of issuance of this report<br/><b>27 March 2007 (27.03.2007)</b></td> </tr> <tr> <td style="padding: 5px;">Authorized officer<br/><br/><b>Masashi Honda</b><br/><br/>e-mail: <a href="mailto:p008.pct@wipo.int">p008.pct@wipo.int</a></td> </tr> </table> | Date of issuance of this report<br><b>27 March 2007 (27.03.2007)</b> | Authorized officer<br><br><b>Masashi Honda</b><br><br>e-mail: <a href="mailto:p008.pct@wipo.int">p008.pct@wipo.int</a> |
| Date of issuance of this report<br><b>27 March 2007 (27.03.2007)</b>                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                  |                                                                      |                                                                                                                        |
| Authorized officer<br><br><b>Masashi Honda</b><br><br>e-mail: <a href="mailto:p008.pct@wipo.int">p008.pct@wipo.int</a>                                                 |                                                                                                                                                                                                                                                                                                                                                                  |                                                                      |                                                                                                                        |

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 01 FEB 2006  
PCT  
WIPO PCT

To:

see form PCT/ISA/220

6/4

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

FOR FURTHER ACTION  
See paragraph 2 below

International application No.  
PCT/US2005/034254

International filing date (day/month/year)  
27.09.2005

Priority date (day/month/year)  
27.09.2004

International Patent Classification (IPC) or both national classification and IPC  
A01N43/58

Applicant  
E.I. DUPONT DE NEMOURS AND COMPANY

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 58.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office  
D-80289 Munich  
Tel. +49 89 2369 - 0 Tx: 523655 epmu d  
Fax: +49 89 2369 - 4485

Authorized Officer

Romano-Göttsch, R

Telephone No. +49 89 2369-6574



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/034254

**Box No. 1 Basis of the opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/034254

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

**1. Statement**

|                               |             |      |
|-------------------------------|-------------|------|
| Novelty (N)                   | Yes: Claims | 1-10 |
|                               | No: Claims  |      |
| Inventive step (IS)           | Yes: Claims | 1-10 |
|                               | No: Claims  |      |
| Industrial applicability (IA) | Yes: Claims | 1-10 |
|                               | No: Claims  |      |

**2. Citations and explanations**

**see separate sheet**

**Box No. VI Certain documents cited**

**1. Certain published documents (Rules 43bis.1 and 70.10)**

**and /or**

**2. Non-written disclosures (Rules 43bis.1 and 70.9)**

**see form 210**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2005/034254

**Re Item V.**

Reference is made to the following documents:

D1 : EP 0 737 682 A (MITSUI TOATSU CHEMICALS, INC.) (1996-10-16)

D2 : Tomya, K.; Yanase, Y., Congress Proceedings - BCPC Int. Congress: Crop Science & Technology, Glasgow, UK, Nov.10-12,2003, vol. 1, 2003, pages 99-104,

The present application is directed to fungicidal mixtures comprising (a) penthiopyrad or an agriculturally suitable salt thereof and (b) at least one compound of Formula III or Formula IV which act at the bc1 complex of the fungal mitochondrial respiratory electron transfer site and optionally (c) at least one compound selected from the group of compounds acting at the demethylase enzyme of the sterol biosynthesis pathway and agriculturally suitable salts thereof (claim 1). The application is also directed to a method for controlling a plant disease using said composition (claim 8).

**Novelty**

None of D1 or D2 is prejudicial to the novelty of present claims 1-10.

Document D1 discloses thiophene derivatives, among which penthiopyrad (see example 14), and their use as fungicide.

Document D2 is a report on the fungicidal activity of penthiopyrad and the identification of the complex II (succinate dehydrogenase) as target site. The subject-matter of independent claim 1 differs from D1 and D2 in that it is directed to mixtures comprising, in addition to penthiopyrad, the component (b) and optionally (c).

It follows that the composition and the method using said compositions, i.e the subject-matter of claims 1 and 8 and their respective dependent claims, meets the requirements of Art. 33(2)PCT.

**Inventive Step**

Departing from D2 as closest prior art, the problem to be solved is regarded as the provision of fungicidal mixtures containing penthiopyrad with enhanced efficacy at lower dosages (synergy).

The solution proposed in claim 1 the application is to combine penthiopyrad at least one compound of Formula III or Formula IV which act at the bc1 complex of the fungal mitochondrial respiratory electron transfer site, and optionally, at least one compound selected from the group of compounds acting at the demethylase enzyme of the sterol biosynthesis pathway and agriculturally suitable salts thereof, and use this combination for controlling fungal plant diseases.

There is no teaching in either D1 or D2 that renders obvious the combinations on file, because none of D1 or D2 suggest combining penthiopyrad with compounds which act at the bc1 complex of the fungal mitochondrial respiratory electron transfer site. Therefore, the solution proposed in present claims 1 and 8 (and their respective dependent claims) is considered as involving an inventive step (Article 33(3) PCT).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2005/034254

**Re Item V.**

Reference is made to the following documents:

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The present application is directed to fungicidal mixtures comprising (a) penthiopyrad or an agriculturally suitable salt thereof and (b) at least one compound of Formula III or Formula IV which act at the bc1 complex of the fungal mitochondrial respiratory electron transfer site and optionally (c) at least one compound selected from the group of compounds acting at the demethylase enzyme of the sterol biosynthesis pathway and agriculturally suitable salts thereof (claim 1). The application is also directed to a method for controlling a plant disease using said composition (claim 8).

**Novelty**

None of D1 or D2 is prejudicial to the novelty of present claims 1-10.

Document D1 discloses thiophene derivatives, among which penthiopyrad (see example 14), and their use as fungicide.

Document D2 is a report on the fungicidal activity of penthiopyrad and the identification of the complex II (succinate dehydrogenase) as target site. The subject-matter of independent claim 1 differs from D1 and D2 in that it is directed to mixtures comprising, in addition to penthiopyrad, the component (b) and optionally (c).

It follows that the composition and the method using said compositions, i.e the subject-matter of claims 1 and 8 and their respective dependent claims, meets the requirements of Art. 33(2)PCT.

**Inventive Step**

Departing from D2 as closest prior art, the problem to be solved is regarded as the provision of fungicidal mixtures containing penthiopyrad with enhanced efficacy at lower dosages (synergy).

The solution proposed in claim 1 the application is to combine penthiopyrad at least one compound of Formula III or Formula IV which act at the bc1 complex of the fungal mitochondrial respiratory electron transfer site, and optionally, at least one compound selected from the group of compounds acting at the demethylase enzyme of the sterol biosynthesis pathway and agriculturally suitable salts thereof, and use this combination for controlling fungal plant diseases.

There is no teaching in either D1 or D2 that renders obvious the combinations on file, because none of D1 or D2 suggest combining penthiopyrad with compounds which act at the bc1 complex of the fungal mitochondrial respiratory electron transfer site. Therefore, the solution proposed in present claims 1 and 8 (and their respective dependent claims) is considered as involving an inventive step (Article 33(3) PCT).