

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

No. 07-034179- -00001-0000
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Act. 329 CTOINFORMACION Folios: 10

Señora

Alix Carmenza Céspedes de Vergel

Jefe de División de Nuevas Creaciones

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

E. S. D.

Referencia: Expediente No. 07.034.179

Solicitud de Patente de Invención titulada: "Mezclas de complejo de iones y procesos para la deposición de recubrimiento sobre superficies."

Solicitante: Omniseal, Inc.

MEMORIAL DE ALCANCE

ÁLVARO CORREA ORDÓÑEZ, mayor de edad y vecino de Bogotá D.C., identificado según aparece al pie de mi firma, en mi condición de apoderado de la sociedad en referencia, manifiesto lo siguiente:

El día 4 de abril de 2007, bajo el número de radicación 07.034.179, presenté la solicitud de patente de invención de la referencia, para la cual adjunto informe preliminar internacional sobre patentabilidad, capítulo I del tratado de cooperación en materia de patentes.

Atentamente,



ÁLVARO CORREA ORDÓÑEZ
C.C.No.79.143.366 de Usaquén
T.P.20.281

Anexo: Informe preliminar internacional sobre patentabilidad, capítulo I

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PATENT COOPERATION TREATY

PCT/US2005/031997

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)
(PCT Rule 44bis.1(c))

To:

WESTBY, Timothy S.
JP Morgan Chase Tower
600 Travis, Suite 7100
Houston, TX 77002-2912
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 22 March 2007 (22.03.2007)		IMPORTANT NOTICE	
Applicant's or agent's file reference 2302-00702			
International application No. PCT/US2005/031997	International filing date (day/month/year) 08 September 2005 (08.09.2005)	Priority date (day/month/year) 08 September 2004 (08.09.2004)	
Applicant OMNISEAL, INC. et al			

The International Bureau transmits herewith a copy of the International preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

RECEIVED

MAR 30 2007

CONLEY R. J. [Signature]

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Authorized officer Philippe Becamel e-mail: pt12.pct@wipo.int
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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 2302-00702	FOR FURTHER ACTION	See item 4 below
International application No. PCT/US2005/031997	International filing date (day/month/year) 08 September 2005 (08.09.2005)	Priority date (day/month/year) 08 September 2004 (08.09.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant OMNISEAL, INC.		

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 8 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: <table style="width: 100%;"> <tr> <td style="width: 10%; text-align: center;">☒</td> <td style="width: 30%;">Box No. I</td> <td style="width: 80%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;">☒</td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;">☐</td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;">☒</td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;">☒</td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	☒	Box No. I	Basis of the report	☐	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 Article 35(2) 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
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☒	Box No. VII	Certain defects in the international application																							
☒	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 93bis.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 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Date of issuance of this report 13 March 2007 (13.03.2007)</td> <td style="width: 50%;">Authorized officer Philippe Becamel</td> </tr> <tr> <td colspan="2">e-mail: pt12.pct@wipo.int</td> </tr> </table>	Date of issuance of this report 13 March 2007 (13.03.2007)	Authorized officer Philippe Becamel	e-mail: pt12.pct@wipo.int	
Date of issuance of this report 13 March 2007 (13.03.2007)	Authorized officer Philippe Becamel				
e-mail: pt12.pct@wipo.int					

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 16 JUN 2006

PCT

PCT

To:
TIMOTHY S. WESTBY
JP MORGAN CHASE TOWER
600 TRAVIS, SUITE 7100
HOUSTON, TX 77002-2912

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) **14 JUN 2006**

Applicant's or agent's file reference

2302-00702

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US05/31997

International filing date (day/month/year)

08 September 2005 (08.09.2005)

Priority date (day/month/year)

08 September 2004 (08.09.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC: Please See Continuation Sheet

USPC: 508/161,136,141,156,155,162,154,170;44/320,354,410,317,457,458;106/14,33;208/15,16,17,18,19

Applicant

OMNISEAL, INC

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 be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that 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 66.1bis(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 3 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/ US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Date of completion of this opinion

28 April 2006 (28.04.2006)

Authorized officer

Amy Lang

Telephone No. 571-272-9057

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US05/31997

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of IPC:

C10L 1/23(2006.01), 1/23(2006.01), 10/02(2006.01), 10/04(2006.01), 1/30(2006.01), 1/12(2006.01), C10M 141/10(2006.01), 125/26(2006.01), 169/04(2006.01), 133/02(2006.01), 141/02(2006.01), 125/10(2006.01), 125/24(2006.01), 125/22(2006.01)

V. 2. Citations and Explanations:

Claims 1-10, 26, 27, 29-32, and 34-37 lack novelty under PCT Article 33(2) as being anticipated by Geza (US 2,668,145). Geza discloses an aqueous solution comprised of ammonium hydroxide, potassium or sodium hydroxide, silicon, phosphorus, and sulfur (column 2, lines 23-35; column 5, lines 66-73; column 9, lines 69-72). The source of silicon is disclosed as either potassium silicate or sodium silicate. Furthermore the method to prepare the solution involves dehydrating the mixture and combining with hydrocarbon oil (Example 1, column 8). The hydrocarbon oil is disclosed as synthetic oil, petroleum hydrocarbons, or mineral oil (column 7, lines 20-44). The prepared solution is disclosed as a lubricant, which is inherently a coating composition. The lubricant is intended to improve upon current motor and gear oil, which is a performance enhancing engine additive (column 1, lines 1-13).

Claims 11-14 lack novelty under PCT Article 33(2) as being anticipated by McCormac (US 6,319,308). McCormac discloses an aqueous coating composition (column 6, lines 51-60; column 1, lines 6-10). The engine additive contains ammonium, in the form of ammonium hydroxide, and alkali metals, specifically potassium and sodium hydroxide (column 5, lines 4-7). Furthermore, the coating composition is comprised of boron, silicon, and carbon (see, for example claim 10). The composition is further disclosed with a pH between 10 and 14 (column 4, lines 46-47). Additionally, a composition as disclosed by McCormac is inherently capable of solubilization in hydrocarbons.

Claims 11 and 15 lack an inventive step under PCT Article 33(3) as being obvious over Adams (US 3,031,749) in view of McCormac (US 6,319,308). The discussion of '308 hereinabove is incorporated here. Adams discloses a coating composition with the addition of mineral oil to the application of metals (column 2, lines 5-11). The addition of mineral oil is advantageous by preventing rust. However, Adams does not disclose the same composition as described in the instant claim 11. McCormac discloses a composition that is identical to the instant claim 11 and is used for coating on metal surfaces. It therefore, would have been obvious to solubilize the composition disclosed by McCormac with mineral oil, since Adams teaches this reduces the amount of rust on metals.

Claims 16-22, 24, 38-41, and 43 lack an inventive step under PCT Article 33(3) as being obvious over Geza (2,668,145) in view of Horng (US 3,992,307). The discussion of '145 hereinabove is incorporated here. Geza discloses an aqueous composition comprised of ammonium hydroxide, silicates, and alkali metals, and solubilizing the composition in a hydrocarbon and dehydrating. The composition is further comprised of additional metals from Groups I-VIII of the periodic table (column 9, lines 58-72). The disclosed composition is

Form PCT/ISA/237 (Supplemental Box) (April 2005)

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/31997

Box No. I Basis of this 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
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) 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

- ☐ on paper
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in electronic 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(s) 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:

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US05/31997

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

1. Statement

Novelty (N)	Claims 15-25, 28, 33, 38-45	YES
	Claims 1-14, 26, 27, 29-32, 34-37	NO
Inventive step (IS)	Claims 28	YES
	Claims 1-27, 29-45	NO
Industrial applicability (IA)	Claims 1-45	YES
	Claims NONE	NO

2. Citations and explanations:

Please See Continuation Sheet

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/31997

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The description is objected to as containing the following defect(s) under PCT Rule 66.2(a)(iii) in the form or contents thereof: pg. 12 of the specification recites "to hot too" which should be replaced with "too hot to."

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/31997

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claim 28 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claim 28 is indefinite for the following reason(s): claim 28 recites the limitation "ferrosilicon" as a silicate. This is erroneous since ferrosilicon appears to be an "alloy" of two entities, iron and silicon, neither of which is a silicate which is a "compound containing silicon, oxygen, and one or more metals with or without hydrogen" (Hawley's Condensed Chemical Dictionary, p. 996).

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/31997

Supplemental Box

Supplemental Box
In case the space in any of the preceding boxes is not sufficient.

a lubricant, which inherently forms a coating composition on a surface, specifically a silicon surface with the addition of silicates. Geza does state the intended use of the composition for improved motor oil. Hotten discloses the use of motor oils in internal combustion engines and gasoline engines (column 2, lines 62-68). It therefore would have been obvious to use the composition disclosed by Geza in an internal or gasoline engine, as Geza teaches improved motor oil.

Claims 32 and 42 lack an inventive step under PCT Article 33(3) as being obvious over Geza (US 2,668,145) in view of Hotten (US 3,992,307) and Smith (US 1,964,369). The discussion of '145 hereinabove is incorporated here. The discussion of '307 hereinabove is incorporated here. Geza discloses a composition that is comprised of an alkali metal, ammonium ions, and silicate. Furthermore the composition is solubilized in hydrocarbon oil thereby producing a lubricant. This lubricating composition is then used as an improved motor, gear, or hydraulic oil. However, Geza does not specifically disclose the use of the lubricant in an internal combustion engine. Hotten teaches the use of motor oils in an internal combustion engine. Smith teaches that a diesel engine is an internal combustion engine (lines 59-63), thereby it would have been obvious to use the improved motor oil, disclosed by Geza, in a diesel engine.

Claims 25, 44, and 45 lack an inventive step under PCT Article 33(3) as being obvious over Geza (US 2,668,145) in view of Schieman (US 4,717,489). The discussion of '145 hereinabove is incorporated here. Geza discloses a lubricating composition of improved motor oil, which is inherently used in engines. Schieman discloses a motor oil composition for internal combustion engines (column 1, lines 4-5). Schieman further teaches through a standardized Cummins NTC 400 Diesel engine test, which measures fuel consumption, that the disclosed composition improves fuel consumption of an engine by at least 5% compared to two other motor oils. In addition, the instant claims do not specify the method to measure fuel consumption. Therefore it is known in the art that motor oils are capable of improving fuel consumption by at least 5%, and Geza also discloses a motor oil. It would have been obvious to then combine the two inventions as disclosed by Geza and Schieman and produce motor oil with fuel consumption of 5% or more.

Claim 33 lacks an inventive step under PCT Article 33(3) as being obvious over Geza (US 2,668,145) in view of Cook (US 2,864,726). The discussion of '145 hereinabove is incorporated above. Geza discloses a composition that is comprised of an alkali metal, ammonium ions, and silicate. Furthermore the composition is solubilized in hydrocarbon oil, specifically mineral oil. However, Geza does not disclose the hydrocarbon oil as neutral oil. Cook discloses that mineral oil is neutral oil (claim 5, column 9). Since the two lubricating oils are intrinsically the same, it would have been obvious for Geza to replace mineral oil with neutral oil.

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REPUBLICA DE COLOMBIA
SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

Folio 189

2020
Bogotá D.C.,

Doctor(a)
CORREA ORDOÑEZ ALVARO
Apoderado(a) y/o Representante de
OMNISEAL, INC

REFERENCIA	Radicación No.	07 34179
	Solicitud internacional	PCT/US2005/031997
	Fecha inicio fase nacional	08/04/2007
	Trámite	11
	Evento	378
	Actuación	416
	Oficio No.	3355
	Folios	1

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en la Decisión 486 de la Comisión de la Comunidad Andina, el Tratado de Cooperación en Materia de Patentes (PCT), el Reglamento y la Circular Única de la Superintendencia de Industria y Comercio, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial.

Cúmplase
Dado en Bogotá DC,

13 JUL 2007


CLARA C. DE JAIMES
Jefe de la división de Nuevas Creaciones (E)

adpall