

2939/PCT

**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES**

E. S. D.

Ref.: Expediente No. 06020920
Solicitud de Patente a nombre de
Basic Chemicals Company, LLC.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
Rad: 06-020920- -00002-0000
Fec: 2006-08-02 14:39:20 Dep. 2020 NUECREACIONES
Tít. 11 PATENTE Y II
Cve: 378 FASINACIONALI
Act 444 RESPUESTAREQUE Folios: 30

Yo, JIMENA ESCOBAR URIBE, identificada como aparece al pie de mi firma, domiciliada en la Carrera 11 A No. 94-76, Of. 305, obrando como apoderada de la sociedad **Basic Chemicals Company, LLC.**, domiciliada en Dallas, Texas, Estados Unidos de América, en respuesta su oficio No. 4614 notificado por fijación en lista el día 28 de abril de 2006, solicitante de la patente de la referencia, me permito presentar los siguientes documentos:

1. Documento de cambio de nombre debidamente apostillado de la sociedad **Vulcan Chemicals et al., a Vulcan Materials Company.**
2. Documento de cambio de nombre debidamente apostillado de la sociedad **Vulcan Materials Company** a la sociedad **Basic Chemicals Company, LLC.**
3. Documento de cesión del inventor a **Vulcan Chemicals** debidamente apostillado. Al respecto, es importante aclarar que con esta cesión los derechos sobre esta invención los tiene la sociedad solicitante en Colombia, **Basic Chemicals Company LLC** ya que ésta simplemente cambio dos veces de nombre.

Sobre el particular, es importante resaltar que de conformidad con las normas legales vigentes, artículo 1 de la Resolución 210 de 2001, expedida por el Superintendente de Industria y Comercio y artículo 2 de la Convención de la Haya, el documento en inglés que se pretenda aportar como parte de los trámites de propiedad industrial ante la Superintendencia de Industria y Comercio no requieren traducción. Por otro lado, la legalización consular y/o diplomática de los documentos expedidos en el extranjero no es necesaria. Por lo tanto, los documentos de cesión anexos a este memorial son válidamente presentados en idioma inglés y con la correspondiente Apostilla.

Espero con esto haber dado cabal cumplimiento a lo solicitado por ese despacho y de conformidad con lo indicado en los artículos 3º., inciso 3, 35 inciso 2 y 59 inciso 2 del CCA, al analizar este memorial, atentamente ruego se traten todas las cuestiones planteadas con motivo del mismo.

Señor Superintendente,


JIMENA ESCOBAR URIBE
C.C.39.779.452 de Usaquén
T.P. 68.228

APOSTILLE

(Convention de La Haye du 5 octobre 1961)

67

1. Country: United States of America

This public document

2. has been signed by P. Swain

3. acting in the capacity of Certifying Officer

4. bears the seal/stamp of Patent and Trademark Office

Certified

5. at Washington, D.C.

6. the twenty-eighth of June, 2006

7. by Assistant Authentication Officer, United States Department of State

8. No. 06025541-1

9. Seal/Stamp:

10. Signature:

Sonya N. Johnson

2939
cambio de
nombre

43

A 1482718

THE UNITED STATES OF AMERICA

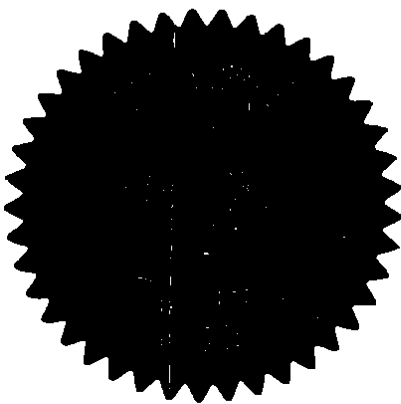
TO ALL TO WHOM THESE PRESENTS SHALL COME:

**UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office**

June 23, 2006

**THIS IS TO CERTIFY THAT ANNEXED IS A TRUE COPY FROM THE
RECORDS OF THIS OFFICE OF A DOCUMENT RECORDED ON
August 03, 2005.**

**By Authority of the
Under Secretary of Commerce for Intellectual Property
and Director of the United States Patent and Trademark Office**



**P. SWAIN
Certifying Officer**

111PS

FR-06-13

52A

49

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	CHANGE OF NAME

CONVEYING PARTY DATA	
Name	Execution Date
Vulcan Chemicals	07/12/2005
Vulcan Chemicals, a Division of Vulcan Materials Company	07/12/2005
Vulcan Chemicals, a Business Group of Vulcan Materials Company	07/12/2005

RECEIVING PARTY DATA	
Name:	Vulcan Materials Company
Street Address:	1200 Urban Center Drive
City:	Birmingham
State/Country:	ALABAMA
Postal Code:	35242

PROPERTY NUMBERS Total: 23	
Property Type	Number
Patent Number:	5004849
Patent Number:	5324487
Patent Number:	5433838
Patent Number:	5458858
Patent Number:	6197215
Patent Number:	6304327
Patent Number:	6500995
Patent Number:	6534888
Patent Number:	6552238
Patent Number:	6602442
Patent Number:	6627085
Patent Number:	6617479
Patent Number:	6646020

CH \$920.00 5004849

500043002

PATENT
REEL: 016345 FRAME: 0108

Patent Number:	8720486
Patent Number:	8313380
Application Number:	10857895
Application Number:	10809833
Application Number:	10308009
Application Number:	10457335
Application Number:	10848709
Application Number:	10850854
Application Number:	10830549
Application Number:	80837910

CORRESPONDENCE DATA

Fax Number: (410)337-2298

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 410-337-2295

Email: len@leonardbloom.com

Correspondent Name: Armstrong Kratz Quintos Hanson Brooks

Address Line 1: 502 Washington Avenue

Address Line 2: Suite 220

Address Line 4: Towson, MARYLAND 21204

NAME OF SUBMITTER:

Robert M. Gamson

Total Attachments: 3

source=Vulcan dba Affidavit p1#page1.tif

source=Vulcan dba Affidavit p2#page1.tif

source=Vulcan dba Annex A#page1.tif

PATENT
REEL: 016345 FRAME: 0109

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51

AFFIDAVIT

I, Harri Haikala, the undersigned being duly sworn, depose and say:

I hold the position of Assistant General Counsel and Assistant Secretary, Vulcan Materials Company, a corporation organized and operating under the laws of the state of New Jersey and having the principal place of business at 1200 Urban Center Drive, Birmingham, AL 35242.

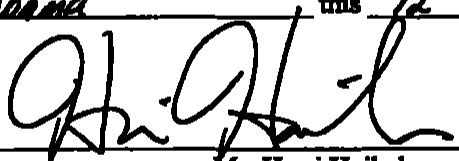
Vulcan Materials Company has been known from time to time under various names in an operational or a "doing business as" (dba) capacity. Included in these dba titles are:

Vulcan Chemicals
Vulcan Chemicals (Performance Chemicals)
Vulcan Chemicals, a Division of Vulcan Materials Co.
Vulcan Chemicals, a Business Unit of Vulcan Materials Co.
Vulcan Chemicals, a Business Group of Vulcan Materials Co.

There are a number of United States patents and patent applications and foreign patents and patent applications which use one of the above "dba" names to refer to Vulcan Materials Company as applicant or owner.

All of these "dba" titles and names, and all use thereof is and has been at all times with the intent and effect of referring to Vulcan Materials Company in its full and legal capacity, and would be understood by all in the trade to refer solely to Vulcan Materials Company and none other. Vulcan Materials Company from time to time has executed documents using such "dba" names, and has taken action or title in such "dba" names. Accordingly, the entity referred to by each such "dba" name is one and the same entity as Vulcan Materials Company, without any deviation or separation in meaning for legal purposes of right, title, interest, or contract. Annex A, attached hereto, identifies the U.S. patent and patent applications of the "dba" company.

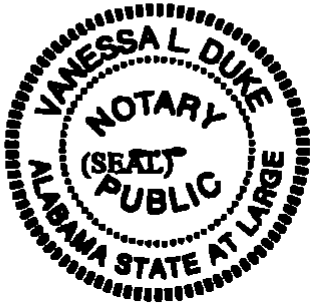
Further Affiant sayeth not.

Executed at Birmingham, Alabama this 12th day of
July 2005

Mr. Harri Haikala

PATENT
REEL: 016345 FRAME: 0110

State of *Alabama*)
) SS:
County of *Jefferson*)

Before me personally appeared said *Harri J. Haikala*, who acknowledged
the foregoing instrument to be his own free act and deed this *12th* day of
July, 20 *05*.



Thomas L. Duke
NOTARY PUBLIC

My commission expires *July 2, 2007*

RMG/mgb

PATENT
REEL: 016345 FRAME: 0111

53 56

ANNEX A

<u>dba Company</u>	<u>U.S. Patent Application No.</u>	<u>U.S. Patent No.</u>
Vulcan Chemicals	10/650,654	5,004,849
	10/657,895	5,324,497
		5,433,938
		6,197,215
		6,304,327
		6,534,688
		6,552,238
		6,602,442
		6,627,085
Vulcan Chemicals, a Division of Vulcan Materials Company	—	5,458,858
		6,617,479
		6,646,020
		6,720,466
Vulcan Chemicals, a Business Group of Vulcan Materials Company	10/308,009	6,313,360
	10/457,335	6,500,995
	10/648,709	6,552,238
	10/809,633	
	10/830,549	
	60/637,910	

RMG/mgb

REC RDED: 08/03/2005

PATENT
REEL: 016345 FRAME: 0112

APOSTILLE

(Convention de La Haye du 5 octobre 1961)

1. Country: United States of America

This public document

2. has been signed by M. Tarver

3. acting in the capacity of Certifying Officer

4. bears the seal/stamp of Patent and Trademark Office

Certified

5. at Washington, D.C.

6. the twenty-eighth of June, 2006

7. by Assistant Authentication Officer, United States Department of State

8. No. 06025541-2

9. Seal/Stamp:

10. Signature:

Sonya N. Johnson

2939
design inventor
58
5

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THE UNITED STATES OF AMERICA

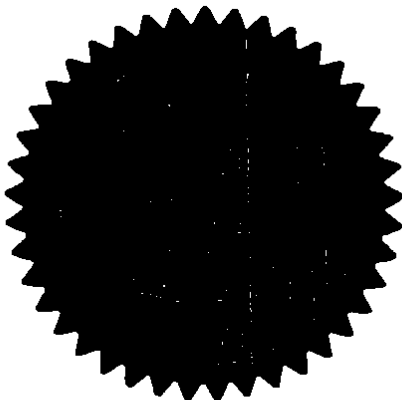
TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

June 22, 2006

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September 9, 2003

By Authority of the
Under Secretary of Commerce for Intellectual Property
and Director of the United States Patent and Trademark Office



M. Tarver

M. TARVER
Certifying Officer

MIPS

FR-06-13

09-16-2003

HEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Honorable Commissioner of

102552843

had original documents or copy thereof.

1. Name of conveying party:

Rodney L. Klausmeyer

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies)

Name: VULCAN CHEMICALSA BUSINESS UNIT OF VULCAN MATERIALS COMPANY

Internal Address: _____

Street Address: 1200 Urban Center DriveCity: Birmingham State: AL ZIP: 35242Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other _____Execution date: August 29, 2003

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application date is: September 9, 2003

A.

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sam Rosen, Esquire

Internal Address: _____

ARMSTRONG, WESTERMAN & HATTORI, LLPStreet Address: 502 Washington AvenueSuite 220City: Towson State: MD ZIP: 21204

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41).....\$40.00

☒ Enclosed☐ Authorized to be charged to Deposit Account
No. 022839 if additional fees are required.

8. Deposit account number:

02-2839

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Sam Rosen

Name of Person Signing

Sam Rosen

Signature

September 9, 2003

Date

Total number of pages including cover sheet, attachments, and document:

3

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents and Trademarks, Box Assignments
Washington, DC 20231PATENT
REEL: 014481 FRAME: 0745

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ST

A S S I G N M E N T

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, I,

RODNEY L. KLAUSMEYER

do hereby sell and assign to

VULCAN CHEMICALS
A BUSINESS UNIT OF VULCAN MATERIALS COMPANY

a corporation organized and existing under the laws of the State of New Jersey, U.S.A., having its principal place of business at 1200 Urban Center Drive, Birmingham, Alabama 35242, (hereinafter referred to as "ASSIGNEE") its successors, assigns, nominees, or other legal representatives, the entire right, title and interest in and to the improvements in:

METHOD FOR REUSING HEAVY END BY-PRODUCTS IN THE
MANUFACTURE OF POLYCHLORINATED ALKANES

invented by me and the application for United States Patent therefor, Serial No. to be assigned, and all original and reissued patents granted therefor, and all divisions and continuations thereof, including the subject matter of any and all claims which may be obtained in every such patent, and the right to apply for and obtain patents, Utility Model Registrations and Inventor's Certificates in countries foreign to the United States, and in and to any Letters Patent, Utility Model Registration or Inventor's Certificate which may be granted thereon in such foreign countries, including all priority rights under the International Convention associated therewith for each country of the Union, and authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue the said Letters Patent, Utility Model Registration or Inventor's Certificate to the said "ASSIGNEE," its successors, assigns, nominees or other legal representatives, as assignee of the entire interest, and covenant that I have full right to convey the entire interest herein assigned and that I have not executed and will not execute any agreement in conflict herewith, and agree that I will communicate to said "ASSIGNEE," its successors, assigns, nominees or other legal representatives all facts known to me respecting said invention, whenever requested, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and do all lawful acts requisite for the application for such divisional, continuing or reissue applications, or the procuring thereof, and that if and when said "ASSIGNEE," its successors, assigns, nominees or other legal representatives desire to file a disclaimer relating thereto, I will, upon request, sign all lawful papers requisite for the filing of such disclaimer, and I further covenant and agree that I will, at any time upon request, do

PATENT
REEL: 014481 FRAME: 0746

everything legally possible to aid said "ASSIGNEE," its successors, assigns, nominees or other legal representatives, either in its or their own name, to apply for, obtain and enforce patent, Utility Model and/or Inventor's Certificate protection for said improvements in all countries, all without further consideration but at the expense of said "ASSIGNEE," its successors, assigns, nominees, or other legal representatives.

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P

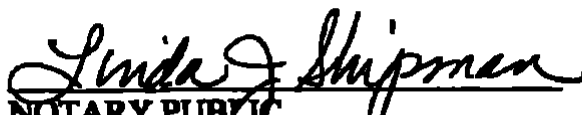
Executed at Wichita, Kansas this 29th
day of August, 2003



RODNEY L. KLAUSMEYER

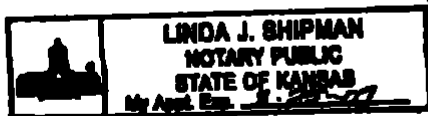
State of Kansas)
County of Sedgewick) SS:

Before me personally appeared said RODNEY L. KLAUSMEYER, who acknowledged the foregoing instrument to be his own free act and deed this 29th day of August, 2003.



NOTARY PUBLIC

(SEAL)



My commission expires August 25, 2007

SR/jjr (08-01-03)

APOSTILLE

(Convention de La Haye du 5 octobre 1961)

59

1. Country: United States of America

This public document

2. has been signed by H. L. Jackson

3. acting in the capacity of Certifying Officer

4. bears the seal/stamp of Patent and Trademark Office

Certified

5. at Washington, D.C.

6. the seventeenth of July, 2006

7. by Assistant Authentication Officer, United States Department of State

8. No. 06027440-1

9. Seal/Stamp:

10. Signature:

Fernesia T. Crawford

Fernesia T. Crawford

2939
cambio de
nombre

60

A 1482723

THE UNITED STATES OF AMERICA

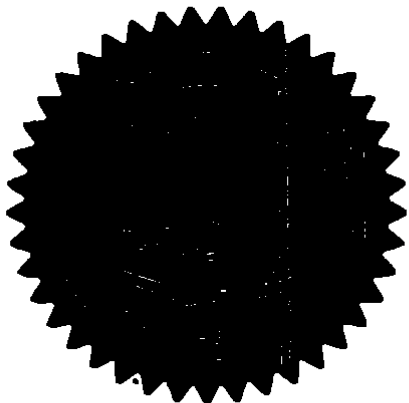
TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

July 13, 2006

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June 02, 2006

By Authority of the
Under Secretary of Commerce for Intellectual Property
and Director of the United States Patent and Trademark Office



H. L. Jackson
H. L. JACKSON
Certifying Officer

Handwritten: 61

Substitute Form PTO-1595
Attorney Docket No.: 20425-001001

RECORDATION FORM COVER SHEET
PATENTS ONLY

Commissioner for Patents: Please record the attached original document(s) or copy(ies).				
1. Name of conveying party(ies): Vulcan Materials Company Additional name(s) attached? ☒ Yes ☐ No	2. Name and address of receiving party(ies): Basic Chemicals Company, LLC 5005 LBJ Freeway Dallas, Texas 75244 Additional names/addresses attached? ☐ Yes ☒ No			
3. Nature of conveyance: ☒ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Other: Execution Date: 06/07/2005				
4. Application number(s) or patent number(s): If this document is being filed with a new application, the execution date of the application is: A. Patent Application No(s): Please see attached. B. Patent No(s): Please see attached. Additional numbers attached? ☒ Yes ☐ No				
5. Name/address of party to whom correspondence concerning document should be mailed: P. WESTON MUSSELMAN, JR. Fish & Richardson P.C. 1717 Main Street Suite 5000 Dallas, Texas 75201	6. Total number of applications/patents involved: 44 7. Total fee (37 CFR §3.41): \$1760 ☐ Enclosed ☒ Authorized to charge Deposit Account. 8. Deposit Account No.: 06-1050 Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.			
DO NOT USE THIS SPACE				
9. Statement and Signature: <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> <table><tr><td>P. Weston Musselman, Jr. Reg. No. 31,644 Name of Person Signing</td><td> Signature</td><td>June 2, 2006 Date</td></tr></table>		P. Weston Musselman, Jr. Reg. No. 31,644 Name of Person Signing	 Signature	June 2, 2006 Date
P. Weston Musselman, Jr. Reg. No. 31,644 Name of Person Signing	 Signature	June 2, 2006 Date		
Total number of pages including coversheet, attachments and document: 15				

CH \$1760.00 061050 10308009

90173925.doc

CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

<u>June 2, 2006</u> Date of Transmission	<u></u> Signature	<u>Paige Nordell</u> Typed Name of Person Signing Certificate
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700268078

PATENT
REEL: 017730 FRAME: 0078

62

1. Name of conveying party(ies):

Vulcan Chloralkali, LLC

APPLICATION NUMBER(S) AND PATENT NUMBER(S)

Application No.	Filing Date	Patent No.	Issue Date	Title
10/308,009	12/03/2002			SEPARATION OF HEAVY ENDS FROM STREAMS OF HALOGENATED ALKANES
10/457,335	06/09/2003			CHLORINE DIOXIDE GENERATION SYSTEMS
10/648,709	08/26/2006			METHOD FOR PRODUCING 1,1,1,3-TETRACHLOROPROPANE AND OTHER HALOALKANES WITH IRON CATALYST
10/650,654	08/28/2003			METHOD FOR PRODUCING 1,1,1,3-TETRACHLOROPROPANE AND OTHER HALOALKANES USING A COPPER CATALYST
10/657,895	09/09/2003			METHOD FOR REUSING HEAVY END BY-PRODUCTS IN THE MANUFACTURE OF POLYCHLORINATED ALKANES
10/809,633	03/25/2004			METHOD FOR PRODUCING ISOPROPYL CHLORIDE FOR USE AS A FOAM-BLOWING AGENT
10/830,549	04/23/2004			METHOD FOR TREATING REVERSE OSMOSIS MEMBRANES WITH CHLORINE DIOXIDE
06/879,907	06/30/1986	4,731,193	03/15/1988	AQUEOUS FOAM CONTAINING CHLORINE DIOXIDE AND PREPARATION AND USE THEREOF
07/193,254	05/11/1988	4,871,022	10/03/1989	METHOD FOR REMOVING POLYMER PLUGGING IN WELL BOREHOLES
07/166,474	03/10/1988	4,889,654	12/26/1989	AQUEOUS FOAM DISINFECTANT CONTAINING CHLORINE DIOXIDE AND PREPARATION AND USE THEREOF
07/279,093	12/02/1988	4,922,043	05/01/1990	MANUFACTURE OF METHYL CHLORIDE

PATENT
REEL: 017730 FRAME: 0080

APPLICATION NUMBER(S) AND PATENT NUMBER(S)

cy

Application No.	Filing Date	Patent No.	Issue Date	Title
				BY HYDROCHLORINATING METHANOL, USING A SPLIT METHANOL FEED
07/451,303	12/15/1989	5,004,849	04/02/1991	MANUFACTURE OF PERCHLOROETHYLENE AND TRICHLOROETHYLENE BY CATALYTIC OXYCHLORINATION, AND IMPROVED CATALYSTS THEREFOR
07/641,170	01/14/1991	5,098,878	03/24/1992	OXYCHLORINATION CATALYST COMPOSITIONS AND PROCESS OF MAKING SAME
07/533,513	06/05/1990	5,113,027	05/12/1992	OXYCHLORINATION PROCESS USING A CATALYST WHICH COMPRISES COPPER CHLORIDE SUPPORTED ON RARE-EARTH MODIFIED ALUMINA
07/695,217	05/03/1991	5,204,081	04/20/1993	PROCESS FOR THE GENERATION OF CHLORINE DIOXIDE
07/639,022	01/09/1991	5,207,532	05/04/1993	PROCESS FOR CONDITIONING MATERIAL FOR DISPOSAL
08/018,924	02/16/1993	5,256,310	10/26/1993	TREATMENT OF FRESH WATER FOR ZEBRA MUSSEL INFESTATION
08/016,238	02/11/1993	5,315,050	05/24/1994	MANUFACTURE OF PERCHLOROETHYLENE FROM CARBON TETRACHLORIDE IN THE PRESENCE OF HYDROGEN
07/843,945	02/26/1992	5,324,497	06/28/1994	INTEGRATED PROCEDURE FOR HIGH YIELD PRODUCTION OF CHLORINE DIOXIDE
08/199,696	02/22/1994	5,399,797	03/21/1995	MANUFACTURE OF PERCHLOROETHYLENE BY

PATENT
REEL: 017730 FRAME: 0081

06/02/2006 10:34 FAX 214/7472081

WILLIAM A. RICHARDSON

005

1985

APPLICATION NUMBER(S) AND PATENT NUMBER(S)

65

Application No.	Filing Date	Patent No.	Issue Date	Title
				CHLORINATING HYDROCARBONS AND PARTIALLY CHLORINATED HYDROCARBONS IN THE PRESENCE OF HYDROGEN
08/064,756	05/19/1993	5,405,549	04/11/1995	GENERATION OF CHLORINE DIOXIDE IN A NON-AQUEOUS MEDIUM
07/965,183	10/23/1992	5,433,938	07/18/1995	CHLORINE-DESTRUCT METHOD
08/193,219	02/08/1994	5,458,858	10/17/1995	INTEGRATED PROCEDURE FOR HIGH YIELD PRODUCTION OF CHLORINE DIOXIDE
08/255,931	06/07/1994	5,536,891	07/16/1996	PURIFICATION OF 1,1,1-TRICHLOROETHANE
08/563,937	11/29/1995	5,597,544	01/28/1997	PREPARATION OF CHLORITE
08/506,862	07/25/1995	5,639,559	06/17/1997	PREPARATION OF CHLORITE
08/590,061	01/17/1996	5,693,252	12/02/1997	GENERATION OF CHLORINE DIOXIDE IN A NON-AQUEOUS MEDIUM
08/416,153	04/04/1995	5,707,546	01/13/1998	GENERATION AND STORAGE OF CHLORINE DIOXIDE IN A NON-AQUEOUS MEDIUM
08/677,120	07/09/1996	5,792,893	08/11/1998	METHOD FOR THE MANUFACTURE OF 1,1,1,3,3,3-HEXACHLOROPROPANE
08/730,363	10/15/1996	5,827,809	10/27/1998	LOW-RESIDUE MACROEMULSION WITH PERCHLOROETHYLENE
09/044,876	03/20/1998	5,984,993	11/16/1999	METHOD AND COMPOSITION FOR ODOR CONTROL
09/257,627	02/25/1999	6,197,215	03/06/2001	COMPOSITION FOR GENERATING CHLORINE DIOXIDE
09/260,801	03/02/1999	6,304,327	10/16/2001	METHOD AND APPARATUS FOR PHOTOMETRIC ANALYSIS OF

PATENT
REEL: 017730 FRAME: 0082

2/2

APPLICATION NUMBER(S) AND PATENT NUMBER(S)

66

Application No.	Filing Date	Patent No.	Issue Date	Title
				CHLORINE DIOXIDE SOLUTIONS
09/671,993	09/29/2000	6,313,360	11/06/2001	PROCESS FOR THE MANUFACTURE OF 1,1,1,3,3-PENTACHLOROPROPANE
09/753,891	01/03/2001	6,440,314	08/27/2002	METHOD FOR DESTROYING CHLORITE IN SOLUTION
09/291,778	04/14/1999	6,451,253	09/17/2002	HIGH CONCENTRATION OF CHLORINE DIOXIDE GEL COMPOSITION
09/880,010	06/14/2001	6,500,995	12/31/2002	WATER-ENHANCED PRODUCTION OF 1,1,1,3,3-PENTACHLOROPROPANE
09/877,201	06/11/2001	6,534,688	03/18/2003	DEHYDROCHLORINATION STABILIZATION OF POLYCHLORINATED ALKANES
09/942,914	08/31/2001	6,552,238	04/22/2003	SEPARATION OF HEAVY ENDS FROM STREAMS OF HALOGENATED ALKANES
09/689,236	10/12/2000	6,602,442	08/05/2003	COMPOSITION FOR GENERATING CHLORINE DIOXIDE
10/223,762	08/19/2002	6,617,479	09/09/2003	METHOD FOR PRODUCING ISOPROPYL CHLORIDE VIA LIQUID-PHASE HYDROCHLORINATION OF PROPYLENE
09/891,015	06/25/2001	6,627,085	09/30/2003	TREATMENT OF BRINE TO REMOVE METALS AND SILICON THEREFROM
10/076,695	02/14/2002	6,646,020	11/11/2003	ISOPROPYL CHLORIDE WITH HYDROFLUOROCARBON OR HYDROFLUOROETHER AS FOAM BLOWING AGENTS
10/125,141	04/17/2002	6,720,466	04/13/2004	1,1,1,3,3-PENTACHLOROPROPANE PROCESS PURGE STREAM CONCENTRATION USING A SECONDARY REFLUXED EVAPORATOR

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FISH & RICHARDSON

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APPLICATION NUMBER(S) AND PATENT NUMBER(S)

67

Application No.	Filing Date	Patent No.	Issue Date	Title
				AND SECONDARY PRODUCT RECOVERY

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THIS PATENT ASSIGNMENT ("Assignment"), dated as of June 7, 2005, is made by Vulcan Materials Company, a New Jersey corporation, and Vulcan Chloralkali, LLC, a Delaware limited liability company, each as assignor (collectively, "Assignors," and each, "Assignor") to Basic Chemicals Company, LLC, a Delaware limited liability company, as assignee ("Assignee"). Reference is made to that certain Asset Purchase Agreement, dated as of October 11, 2004 (the "Purchase Agreement"), by and among Assignors and Assignee. Capitalized terms used and not defined herein shall have the respective meanings attributed to them in the Purchase Agreement.

WHEREAS, Seller desires to assign to Assignee, pursuant to and in accordance with the terms of the Purchase Agreement, the patents and registrations therefor listed on Schedule A (the "Assigned Patents") in the jurisdictions to which they relate; and

WHEREAS, Purchaser desires to acquire Seller's entire worldwide right, title and interest in and to the Assigned Patents, and Seller is willing to assign the Assigned Patents to Purchaser.

NOW, THEREFORE, in consideration of the premises set forth herein and for ONE HUNDRED DOLLARS (\$100.00) and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Assignor and Assignee hereby agree as follows.

1. Seller does hereby sell, assign, transfer and convey to Purchaser, its entire worldwide right, title and interest in and to the Assigned Patents, the same to be held and enjoyed by Purchaser for its own use and enjoyment and the use and enjoyment of its successors, permitted assigns or other legal representatives, to the end of the term or terms for which the Assigned Patents are granted or reissued or extended as fully and entirely as the same would have been held and enjoyed by Seller if this assignment and sale had not been made, as assignee of its entire right, title and interest therein and in and to all income, royalties and payments now or hereafter due or payable with respect thereto.

2. The assignment set forth in paragraph 1 of this Assignment is subject to all licenses and other rights in and to the Assigned Patents previously granted to any third Person, which grants are in effect as of the date of this Assignment and set forth in Section 4.10 of the Seller Disclosure Schedule.

3. The respective rights and obligations of each Assignor, on the one hand, and Assignee, on the other, with respect to the Assigned Patents assigned and assumed hereby shall be governed by the Purchase Agreement, and it is subject to the covenants, representations, warranties and other provisions thereof. No provision in this Assignment and Assumption Agreement shall be deemed to enlarge, alter or amend the terms or provisions of the Purchase Agreement and, in the event of a conflict between this Assignment and the Purchase Agreement, the parties agree that the Purchase Agreement shall control.

4. Each Assignor, for itself and its successors and assigns, agrees that it will at any time and from time to time, at the reasonable request of Assignee or its successors or assigns, execute and deliver, or cause to be executed and delivered, all such other and further instruments and take, or cause to be taken, all such other and further actions that Assignee may reasonably request and Assignor may rightfully execute in order to more fully vest in Assignee all right, title, interest and privileges in respect of the Assigned Patents.

5. Assignors hereby constitute and appoint Assignee the true and lawful agent and attorney in fact of Assignors and each of them, with full power of substitution and resubstitution, in whole or in part, in the name and stead of Assignors or either of them but on behalf and for the benefit of Assignee and its successors and assigns, from time to time: (a) to institute and prosecute, in the name of Assignors or either of them or otherwise, any and all proceedings at law, in equity or otherwise that Assignee or its successors or assigns may deem proper in order to enforce any claim or right of any kind hereby assigned or transferred, or intended to so be, and (b) to do all things legally permissible, required or reasonably deemed by Assignee to be required to preserve the Assigned Patents and to use Assignors' name in such

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manner as Assignee may reasonably deem necessary in connection with the same; in each case, solely to the extent that use of either Seller's name is reasonably required in connection with the particular action.

6. This Assignment shall be binding upon, and inure to the benefit of, the parties hereto, their respective successors in interest, and their respective assigns.

7. This Assignment shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to any conflict of law rules that would direct application of the laws of another jurisdiction, except to the extent that it is mandatory that the law of some other jurisdiction must apply.

8. This Assignment may be amended, supplemented or modified, and any provision hereof may be waived, only pursuant to a written instrument making specific reference hereto signed by each of the parties hereto.

9. This Assignment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, Seller has caused this Assignment to be duly executed in duplicate originals by its duly authorized representative as of the day and year first above written.

WITNESSES:

William F. Denson III

William F. Denson III

Harri Haikal

Harri Haikal

ASSIGNORS:

VULCAN MATERIALS COMPANY

By: Robert A. Wason

Name: Robert A. Wason

Title: Senior Vice President, Corporate Development

VULCAN CHLORALKALI, LLC

By: Vulcan Chemicals Investments, LLC, Manager

By: Bradley C. Rosenwald

Name: Bradley C. Rosenwald

Title: President

William F. Denson III

William F. Denson III

Harri Haikal

Harri Haikal

ASSIGNEE:

BASIC CHEMICALS COMPANY, LLC

By: Mark Koppel

Name: Mark Koppel

Title: Vice President

Scott King

Scott King

Marc J. Kennedy

Marc J. Kennedy

STATE OF NEW YORK)

) ss.

COUNTY OF NEW YORK)

On this 7th day of June, 2005 before me personally appeared Robert A. Wason, Bradley C. Rosenwald and Mark Koppel, to be known and known to me to be the person described in and who executed the foregoing and (s)he duly acknowledged to me that (s)he executed the same.

NOTARY PUBLIC

Denise E. McHugh

DENISE E. McHUGH
Notary Public, State of New York
No. 01MC7843700
Qualified in Putnam County

-3- Commission Expires October 6, 2008

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SCHEDULE A

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Patents Schedule
United States
June 6, 2005

Title	Country	Filing Date	Serial #	Issue Date	Patent #	Status
Separation of heavy ends from streams of hydrogenated alkanes	US	12/3/2002	10/308,009 (Div. of 09/942,914)			PENDING
Chlorine dioxide generation system	US	6/9/2003	10/457,335			PENDING
Method for producing 1,1,1,3-tetrachloropropane and other haloalkanes with iron catalyst	US	8/26/2003	10/648,709			PENDING
Method for producing 1,1,1,3-tetrachloropropane and other haloalkanes with copper catalyst	US	8/28/2003	10/650,654			PENDING
Method for reusing heavy end by-products in the manufacture of	US	9/9/2003	10/657,895			PUBLISHED
Method for producing isopropyl chloride for use as a foam blowing agent	US	3/25/2004	10/809,633			PENDING
Method for Treating Reverse Osmosis Membranes with Chlorine Dioxide	US	4/23/2004	10/830,549			PENDING
Carbon formulations for use as foam blowing agents	US	12/21/2004	60/637,910			PENDING
Dry composition for the production of chlorine dioxide	US	6/12/1985	06/743,749	8/25/1987	4,689,169	PATENTED
Aqueous foam containing chlorine dioxide and preparation and use thereof	US	6/30/1986	06/879,907	3/15/1988	4,731,193	PATENTED
Method for removing polymer plugging in well boreholes	US	5/11/1988	07/193,254	10/3/1989	4,871,022	PATENTED
Aqueous foam disinfectant containing chlorine dioxide and preparation and use thereof	US	3/10/1988	07/166,474	12/26/1989	4,889,654	PATENTED
Manufacture of methyl chloride by hydrochlorinating methane, using a split methanol feed	US	12/2/1988	07/279,093	5/1/1990	4,922,043	PATENTED
Manufacture of perchloroethylene and trichloroethylene by catalytic oxychlorination, and improved catalysts therefor	US	12/15/1989	07/451,303	4/2/1991	5,004,849	PATENTED
Oxychlorination catalyst compositions and process of making same	US	1/14/1991	07/641,170	3/24/1992	5,098,878	PATENTED
Oxychlorination process using a catalyst which comprises copper	US	6/5/1990	07/533,513	5/12/1992	5,113,027	PATENTED
Process for the generation of chlorine dioxide	US	5/3/1991	07/695,217	4/20/1993	5,204,081	PATENTED
Process for conditioning material for disposal	US	1/9/1991	07/639,022	5/4/1993	5,207,532	PATENTED
Treatment of fresh water for zebra mussel infestation	US	2/6/1993	08/018,924	10/26/1993	5,256,310	PATENTED
Manufacture of perchloroethylene from carbon tetrachloride in the presence of hydrogen	US	2/11/1993	08/016,238	5/24/1994	5,315,050	ISSUED
Integrated procedure for high yield production of chlorine dioxide and apparatus used therefor	US	2/26/1992	07/843,945	6/28/1994	5,324,497	PATENTED
Manufacture of perchloroethylene by chlorinating hydrocarbons and partially chlorinated hydrocarbons in the presence of hydrogen	US	2/22/1994	08/199,696	3/21/1995	5,399,797	PATENTED
Generation of chlorine dioxide in a non-aqueous medium	US	5/19/1993	08/064,756	4/11/1995	5,405,549	PATENTED

Title	Country	Filing Date	Serial #	Issue Date	Patent #	Status
Minimizing heavy ends production in the manufacture of perchloroethylene from hydrocarbons or partially chlorinated hydrocarbons	US	6/1/1994	08/252,400	6/20/1995	5,426,256	PATENTED
Chlorine-destruct method	US	10/23/1992	07/965,183	7/18/1995	5,433,938	PATENTED
Integrated procedure for high yield production of chlorine dioxide	US	2/8/1994	08/193,219	10/17/1995	5,458,858	PATENTED
Purification of 1,1,1 Trichloroethane	US	6/7/1994	08/255,931	7/16/1996	5,536,891	PATENTED
Preparation of chlorite	US	11/29/1995	08/563,937	1/28/1997	5,597,544	PATENTED
Preparation of chlorite	US	7/25/1995	08/506,862	6/17/1997	5,639,559	PATENTED
Generation of chlorine dioxide in a non-aqueous medium	US	1/17/1996	08/590,061	12/2/1997	5,693,252	PATENTED
Generation and storage of chlorine dioxide in a non-aqueous medium	US	4/4/1995	08/416,153	1/13/1998	5,707,546	PATENTED
Method for manufacture of 1,1,1,3,3,3 hexachloropropane	US	7/9/1996	08/677,120	8/11/1998	5,792,893	PATENTED
Low-residue macroemulsion with perchloroethylene	US	10/15/1996	08/730,363	10/27/1998	5,827,809	PATENTED
Method and composition for odor control	US	3/20/1998	09/044,876	11/16/1999	5,984,993	PATENTED
Composition for generating chlorine dioxide	US	2/25/1999	09/257,627	3/6/2001	6,197,215	PATENTED
Method and Apparatus for Photometric Analysis of Chlorine Dioxide Solutions	US	3/2/1999	09/260,801	10/16/2001	6,304,327	PATENTED
Process for the Manufacture of 1,1,1,3,3-Pentachloropropane	US	9/29/2000	09/671,993	11/6/2001	6,313,360	PATENTED
Method for destroying chlorite in solution	US	1/3/2001	09/753,891	8/27/2002	6,440,314	PATENTED
High concentration chlorine dioxide gel composition	US	4/14/1999	09/291,778	9/17/2002	6,451,253	PATENTED
Water-enhanced production of 1,1,1,3,3,- pentachloropropane	US	6/14/2001	09/880,010	12/31/2002	6,500,995	PATENTED
Hydrochlorination stabilization of polychlorinated alkanes	US	6/11/2001	09/877,201	3/18/2003	6,534,688	PATENTED
Separation of heavy ends from streams of halogenated alkanes	US	8/31/2001	09/942,914	4/22/2003	6,552,238	PATENTED
Composition for generating chlorine dioxide	US	10/12/2000	09/689,236	8/5/2003	6,602,442	PATENTED
Improved method for producing isopropyl chloride via liquid-phase hydrochlorination of propylene	US	8/19/2002	10/223,762	9/9/2003	6,617,479	PATENTED
Treatment of brine to remove metals and silicon therefrom	US	6/25/2001	09/891,015	9/30/2003	6,627,085	PATENTED
Isopropyl chloride with hydrofluorocarbon or hydrofluoroether as foam blowing agents	US	2/14/2002	10/076,695	11/11/2003	6,646,020	PATENTED
1,1,1,3,3-Pentachloropropane process: purge stream concentration using a secondary refluxed evaporator and secondary product recovery	US	4/17/2002	10/125,141	4/13/2004	6,720,466	PATENTED

Some of these properties are held in the name of various Vulcan or Vulcan-affiliate entities such as Rio Linda Chemical Company, Vulcan Chemical Technologies, or BHJ Chemical Company; or otherwise are held in the name of a d/b/a of Vulcan Materials Company such as "Vulcan Chemicals" or "Vulcan Chemicals, a Business Unit of Vulcan Materials Company". Vulcan has requested its counsel update these title records in the US PTO but cannot yet confirm completion of this task.

US Patent No. 5207532 may be jointly owned together with Exxon Chemical Patents Inc. (The chain of title at the US Patent Office shows an assignment from "Nalco/Exxon Energy Chemicals LP" to a Vulcan entity, but does not evidence any transaction from which Nalco/Exxon Energy Chemicals LP may have obtained an interest from Exxon Chemical Patents Inc. Vulcan does not have knowledge of such a transaction.)

Where appropriate, some of the properties on the list may be abandoned, expired or otherwise not presently in force. See status column above.

**Patents Schedule
International
June 6, 2005**

Title	Country	Filing Date	Serial #	Issue Date	Patent #	Status
Composition for Generating Chlorine Dioxide	Brazil	8/5/2001	PI 0008055 1			PENDING
Method and Apparatus for Photometric Analysis of Chlorine Dioxide Solutions	Canada	7/1/2000	2,299,881			PENDING
Composition for Generating Chlorine Dioxide	Canada	10/1/2001	2,423,198			
Isopropyl Chloride with Hydrofluorocarbon or Hydrofluoroether as Foam Blowing Agents	Canada	2/11/2003	CA 2472929			PENDING
Process for the Generation of Chlorine Dioxide	Canada	9/16/1985	490,836	11/3/1987	1,228,714	MAY BE EXPIRED DEPENDING ON CANADIAN FULL TERM (20 OR 17 YEARS)
Composition for the Production of Chlorine Dioxide - EXPIRED or NOT IN FORCE	Canada	10/29/1984	446,480	4/5/1988	1,234,753	EXPIRED or NOT IN FORCE
Foam Generating and Distributing Manifold Apparatus	Canada	7/9/1985	486518	7/4/1989	1,256,857	PATENTED
Composition for Generating Chlorine Dioxide	China	3/31/2003	1816632 6			PENDING
Isopropyl Chloride with Hydrofluorocarbon or Hydrofluoroether as Foam Blowing Agents	European Patent		EP 1476484			
Dehydrochlorination Stabilization of Polychlorinated Alkanes	European Patent		2778953 6			PENDING
Water Enhanced Production of 1,1,1,3,3-Pentachloropropane	European Patent		2739794 2			PENDING
1,1,1,3,3-Pentachloropropane Process Purge Stream Concentration Using a Secondary Refluxed Evaporator and Secondary Product Recovery	European Patent	2/11/2003	PCT/US03/04212			PENDING
Separation of Heavy Ends from Stream of Hydrogenated Alkanes	European Patent	12/9/2003	2753521			PENDING
Manufacture of perchloroethylene from carbon tetrachloride in the presence of hydrogen	European Patent	2/9/1994	943009464	12/3/1997	0612708	
Manufacture of perchloroethylene by chlorinating hydrocarbons and partially chlorinated hydrocarbons in the presence of hydrogen	European Patent	2/9/1994	943009472	5/20/1998	0614874	
Composition for Generating Chlorine Dioxide	European Patent	2/23/2000	EP20000910315 1	Published 11/21/2001	EP1154690	
Composition for Generating Chlorine Dioxide	European Patent	10/1/2001	PCT/US 01/30644 and EP20010977408	Published 7/25/03	EP1428156	PENDING
Process for the Manufacture of 1,1,1,3,3-Pentachloropropane	European Patent	12/13/2000	EP20000989209	Published	EP1428496	PENDING
Manufacture of perchloroethylene from carbon tetrachloride in the presence of hydrogen	France	2/9/1994	943009464	12/3/1997	0612708	PATENTED
Manufacture of perchloroethylene by chlorinating hydrocarbons and partially chlorinated hydrocarbons in the presence of hydrogen	France	2/9/1994	943009472	5/20/1998	0613874	PATENTED
Composition for Generating Chlorine Dioxide	France	2/23/2000	EP20000910315 1	8/13/2003	EP1154690	PATENTED

Title	Country	Filing Date	Serial #	Issue Date	Patent #	Status
Manufacture of perchloroethylene from carbon trichloride in the presence of hydrogen	Germany	2/9/1994	69407071.80	12/3/1997	0612708	PATENTED
Manufacture of perchloroethylene by chlorinating hydrocarbons and partially chlorinated hydrocarbons in the presence of hydrogen	Germany	2/9/1994	69410317.9	5/20/1998	0613874	PATENTED
Composition for Generating Chlorine Dioxide	Germany	2/23/2000	EP20000910315.1	8/13/2003	600 04 482 72	PATENTED
Manufacture of perchloroethylene from carbon trichloride in the presence of hydrogen	Great Britain	2/9/1994	943009464	12/3/1997	0612708	PATENTED
Manufacture of perchloroethylene by chlorinating hydrocarbons and partially chlorinated hydrocarbons in the presence of hydrogen	Great Britain	2/9/1994	94300947.2	5/20/1998	0613874	PATENTED
Composition for Generating Chlorine Dioxide	Great Britain	2/23/2000	EP20000910315.1	8/13/2003	EP1154690	PATENTED
Manufacture of perchloroethylene from carbon trichloride in the presence of hydrogen	Italy	2/9/1994	943009464	12/3/1997	0612708	PATENTED
Composition for Generating Chlorine Dioxide	Italy	2/23/2000	EP20000910315.1	8/13/2003	89400/BE 2003	PATENTED
Dehydrochlorination Stabilization of Polychlorinated Alkanes	Japan		2003-503850			PENDING
Water-Enhanced Production of 1,1,1,3,3-Pentachloropropane	Japan		2003-505295			PENDING
Isopropyl chloride with hydrofluorocarbon or hydrofluoroether as foam blowing agents	Japan					PROPOSED
Process for the Manufacture of 1,1,1,3,3-Pentachloropropane	Japan	12/13/2000	2002-532195			PENDING
Separation of Heavy Ends from Streams of Hydrogenated Alkanes	Japan	2/20/2004	2003-524949			PENDING
Manufacture of perchloroethylene from carbon trichloride in the presence of hydrogen	Japan	2/10/1994	616142	10/9/1998	2838031	PENDING
Manufacture of perchloroethylene by chlorinating hydrocarbons and partially chlorinated hydrocarbons in the presence of hydrogen	Japan	2/9/1994	6-015298	5/14/1999	2927664	PENDING
Isopropyl Chloride with Hydrofluorocarbon or Hydrofluoroether as Foam Blowing Agents	Mexico					Entering National Phase on 8/13/04
Water-Enhanced Production of 1,1,1,3,3-Pentachloropropane	Mexico		PA/m/2003/011435			PENDING
Method and Apparatus for Photometric Analysis of Chlorine Dioxide Solutions	Mexico	3/2/2000	225,020			PENDING
Composition for Generating Chlorine Dioxide	Mexico	2/10/2003	PA/m/2003/002917			PENDING
Process for the Manufacture of 1,1,1,3,3-Pentachloropropane	Mexico	3/28/2003	PA/m/2003/002713			PENDING
Dehydrochlorination Stabilization of Polychlorinated Alkanes	Mexico	12/10/2003	PA/m/2003/011433			PENDING
Separation of Heavy Ends from Streams of Hydrogenated Alkanes	Mexico	2/23/2004	PA/m/2004/001658			PENDING
1,1,1,3,3-Pentachloropropane Process Purge Stream Concentration Using a Secondary Refluxed Evaporator and Secondary Product Recovery	Mexico	10/15/2004	PA/m/2004/010201			PENDING
Manufacture of perchloroethylene from carbon trichloride in the presence of hydrogen	Mexico	2/9/1994	941039	4/28/1997	184557	PATENTED

REPUBLICA DE COLOMBIA
SUPERINTENDENCIA DE INDUSTRIA Y COMERCI

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2020
Bogotá D.C.,

Doctor(a)
ESCOBAR URIBE JIMENA
Apoderado(a) y/o Representante de
BASIC CHEMICALS COMPANY, LLC

REFERENCIA	Radicación No.	06 20920
	Solicitud internacional	US2004/028298
	Fecha inicio fase nacional	09/04/2006
	Trámite	11
	Evento	378
	Actuación	416
	Oficio No.	2821
	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,

27 MAR. 2007

ALIX CARMEN CESPEDES DE VERGEL
Jefe de la División de Nuevas Creaciones

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