PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
David M. Petraitis	01/14/2009
Thomas Z. Smak	12/29/2008

RECEIVING PARTY DATA

Name:	UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY LLC
Street Address:	2020 Dow Center
City:	Midland
State/Country:	MICHIGAN
Postal Code:	48674

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12587358

CORRESPONDENCE DATA

Fax Number: (651)351-2954

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

Email: pbick@kaganbinder.com

Correspondent Name: Paul John Parins
Address Line 1: 221 Main Street North

Address Line 2: Suite 200

Address Line 4: Stillwater, MINNESOTA 55082

NAME OF SUBMITTER:	Paul John Parins	
ATTORNEY DOCKET NUMBER:	67691-US-NP (DOW0019US)	

Total Attachments: 5

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PATENT REEL: 025580 FRAME: 0197 **\$40.00**

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PATENT REEL: 025580 FRAME: 0198

Docket Ref. 67691

INDIVIDUAL ASSIGNMENT AND INVENTOR'S DECLARATION (WITH PRIORITY RIGHTS)

i/we verily believe I am/we are the original, first and sole/joint inventor(s) of the subject matter which is embraced by and for which a patent is sought on the invention entitled:

METHOD FOR MAKING ETHANOLAMINE(S) AND ETHYLENEAMINE(S) FROM ETHYLENE OXIDE AND AMMONIA, AND RELATED METHODS

which invention was made and invented by me/us out of and in the course of my/our employment with my/our respective employers as stated below my/our name(s). I/we acknowledge that I/we hold the invention and all patent and other rights and powers obtainable or exercisable in respect thereof in trust for our respective employers. As trustee(s), and for good and valuable consideration and/or the remuneration received for my/our work, I/we soil, assign and transfer unto:

UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY LLC 2020 Dow Center Midland, Michigan 48674

UNITED STATES OF AMERICA a limited liability company organized and existing under the laws of Delaware (hereinafter referred to as the "Assignee"); my/our entire right, title and interest throughout the world, in and to the invention and all rights and powers to make applications, including provisional applications when permitted by law, for Letters Patent in its own name, or in the name of its designee (or nominee(s)); and all rights and powers to file any corresponding or equivalent applications in any and all countries, including all rights to claim priority under all United States domestic laws, International Convention(s) and Treaties in the name of Assignee, and do hereby authorize Assignee or its designee to insert here the Filing Date October 6, 2008 61/195,405 Application No. In country the United States of America of the application, on which the claim for priority will be based; and in and to any Letters Patent that may be issued for the invention in any and all countries. I/we do hereby agree to assist Assignee in the prosecution of the application(s) and in any interference, conflict, opposition or litigation which may arise involving the invention or the patent or patents thereon, and to execute for any and all countries any document relating to applications derived from, corresponding to or equivalent to the above identified application as Assignee may request; and I/we do hereby authorize Assignee or its designee (or nominee(s)) to insert here any corresponding equivalent Application No. Filing Date in country to the above Priority application of any country where that country's patent property must be identified and entered hereinabove for recordal of this Assignment. I'we authorize Assignee or its designee to translate this Assignment into all languages necessary; and we request that any such Letters Patent be issued to Assignee; and consent to the recordal of this Assignment, or a Notarial True Copy thereof, being under covenant not only that I/we have full power to make the same, but also that such assigned rights are not encumbered by any grant, license, or other right heretofore given. Subscribed and Declared by me/us: At: Covington, Louisiana 70433, United States of <u>America</u> this <u>14</u> day of <u>ANGREA</u> this day of Effective as of October 5, 200 Effective as of October 6, 2008. Signature: Signature:_ Full Name: David M. Petraitis Thomas Z. Srnak Full Name: Residence: 41 Catalpa Trace Residence: 316 North Stratford Road Covington, Louislana 70433 Arlington Heights, Illinois 60004 United States of America Country: United States of America Country: Citizenship: United States of America Citizenship: United States of America P. O. Address: Same as residence P. O. Address; Same as residence Employed By: Union Carbide Corporation Employed By: Union Carbide Corporation Of Country: United States of America Of Country: United States of America At: Signature: Signature: Full Name: Full Name: Residence: Residence: Country: Country: Citizenship: Citizenship: P. O. Address: P. O. Address: Employed By: Employed By: Of Country: Of Country:

() Additional names and signatures are attached.

FORM 220

Docket Ref. 67691

NOTARIAL CERTIFICATE (INDIVIDUAL)

UNITED STATES OF AMERICA)	
STATE OF LOUISIANA)	SS
County/Parish of St. Tammany)	
On this 14 day of Anuary before me,	•••••	, 20 <u>P</u> , personally appeared
Da	avid	M. Petraitis

known or identified to me to be the individual described in and who executed the foregoing document and acknowledged the same as a free act and deed for uses and purposes therein expressed.

SEAL

Notary Public # 65477
St Tummany Parish, LA
Commission is for Life

FORM 110 (R 5/97)

Subscribe

Docket Ref. 67691

INDIVIDUAL ASSIGNMENT AND INVENTOR'S DECLARATION (WITH PRIORITY RIGHTS)

I/we verily believe I am/we are the original, first and sole/joint inventor(s) of the subject matter which is embraced by and for which a patent is sought on the invention entitled:

METHOD FOR MAKING ETHANOLAMINE(S) AND ETHYLENEAMINE(S) FROM ETHYLENE OXIDE AND AMMONIA, AND RELATED METHODS

which invention was made and invented by me/us out of and in the course of my/our employment with my/our respective employers as stated below my/our name(s). I/we acknowledge that I/we hold the invention and all patent and other rights and powers obtainable or exercisable in respect thereof in trust for our respective employers. As trustee(s), and for good and valuable consideration and/or the remuneration received for my/our work, I/we sell, assign and transfer unto:

UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY LLC

2020 Dow Center	
Midland, Michigan	
UNITED STATES (
my/our entire right, title and interest throughout the world, in a including provisional applications when permitted by law, for nominee(s)); and all rights and powers to file any corresponding	laws of Delaware (hereinafter referred to as the "Assignee"); and to the invention and all rights and powers to make applications, Letters Patent in its own name, or in the name of its designee (or ng or equivalent applications in any and all countries, including all International Convention(s) and Treaties in the name of Assignee, and
Application No. 61/195,405 in country the United States of America	Filing Date October 6, 2008
of the application, on which the claim for priority will be base	ed; and in and to any Letters Patent that may be issued for the sist Assignee in the prosecution of the application(s) and in any
interference, conflict, opposition or litigation which may arise	involving the invention or the patent or patents thereon, and to
execute for any and all countries any document relating to app	lications derived from, corresponding to or equivalent to the above
dentified application as Assignee may request; and I/we do he	reby authorize Assignee or its designee (or nominee(s)) to insert here
any corresponding equivalent	
Application NoFilin	g Date
n country	NAME AND ADDRESS OF THE PARTY O
o the above Priority application of any country where that co	nuntry's patent property must be identified and entered hereinabove
or recordal of this Assignment. I/we authorize Assignee or it	s designee to translate this Assignment into all languages necessary;
and we request that any such Letters Patent be issued to Assign	nee; and consent to the recordal of this Assignment, or a Notarial True
opy thereof, being under covenant not only that I/we have his	I power to make the same, but also that such assigned rights are not
ncumbered by any grant, license, or other right heretofore giv	en.
and Declared by me/us:	
A 4.	
At: this day of , 20 Effective as of October 6, 2008.	this 29th day of December , 2008
this day of	this 29th day of December , 2008
Effective as of October 6, 2008.	Effective as of October 6, 2008.
Signature:	Signature Nouras 3. Junos
Full Name: David M. Petraitis	Full Name: Thomas Z. Sprak
Residence: 41 Catalpa Trace	Residence: 316 North Stratford Road
Covington, Louisiana 70433	Arlington Heights, Illinois 60004
Country: United States of America	Country: United States of America
Citizenship: United States of America	Citizenship: United States of America
P. O. Address: Same as residence	P. O. Address: Same as residence
Employed By: Union Carbide Corporation	Employed By: Union Carbide Corporation
Of Country: United States of America	Of Country: United States of America
At:	1 .
this day of, 20	At:
ans tay or tag tag tag tag	this day of
Signature:	l ci-mu-
Signature:Full Name:	Signature:
Residence:	Full Name:
Residence.	Residence:
Countrie	
Country:	Country:
Citizenship:	Citizenship:
P. O. Address;	P. O. Address:
Employed By:	Employed By:
Of Country:	Of Country:

PATENT

6116178ig Assignment 220 is in the EMGLISH language and has the same inchange in other longuages with the same 220 period 200 period and 200 period 200 pe

FORM 220

Docket Ref. 67691

NOTARIAL CERTIFICATE (INDIVIDUAL)

UNITED STATES OF AMERICA)		
STATE OF)	SS	
County/Parish of Coole			
On this 29 May of December before me,	***		, 20 <u>0\$</u> , personally appeared
T	iom	а з Z. S	rnak
known or identified to me to be the indiv foregoing document and acknowledged t purposes therein expressed.			
			2
OFFICIAL SEAL DANIEL SAURA NOTARY PUBLIC - STATE OF ILLINOIS MY COMMISSION EXPIRES:02/20/11			Notary Public

This Assignee Assequence 660 is in the ENGLISH language and has the same meaning in other languages with the same 660 number. FORM 660

ASSIGNEE ACCEPTANCE

WE, the ASSIGNEE:

UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY LLC

2020 Dow Center

Midland, Michigan 48674

UNITED STATES OF AMERICA

hereby accept the ASSIGNMENT attached hereto which is dated: January 14, 2009 and December 29, 2008

From, the ASSIGNOR(S): David M. Petraitis, 44 Catalpa Trace, Covington, Louisiana 70433, United States of America and Thomas Z. Srnak, 316 North Stratford Road, Arlington Heights, Illinois 60004, United States of America

of the invention entitled:

METHOD FOR MAKING ETHANOLAMINE(S) AND ETHYLENEAMINE(S) FROM ETHYLENE OXIDE AND AMMONIA, AND RELATED METHODS

without any restrictions and with all rights and obligations deriving therefrom and declare that this confirmation of acceptance shall be deemed a part of the said ASSIGNMENT. Signed at Midland, Michigan 48674, U TECHNOLOGY LLC CORP. SEAL. CHARLES J. MAURÉR' Secretary NOTARIAL CERTIFICATE (Corporation) UNITED STATES OF AMERICA) STATE OF MICHIGAN) **SS** County/Parish of Midland On this day of personally appeared before me, CHARLES J. MAURER HE Secretary, known or identified to me to be the individual described in and who executed the foregoing document and acknowledged the same as a free act and deed for uses and purposes therein expressed by authority of the said Corporation incorporated under the laws of the State of Delaware, United States of I further certify that said authority, dated December 31, 2007, is based on an Authorization Policy of the said Corporation, which I have seen, appointing the said individual Attorney-in-fact with full power to sign the foregoing document on behalf of the said corporation and that the purposes for which said document is granted are within the scope of the objects or activities of said corporation. SEAL Notary Public

U in an ASSIGNMENT on the English han

RECORDED: 01/04/2011

Jame M. Neitzel Notaby Public, Bay County, Michigan Acting Numbles County Michigan My Courts on Bur 1893 September 20, 2013

PATENT

REEL: 025580 FRAME: 0203