

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3686756

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
COLUMBIA CHEMICALS COMPANY	12/21/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BANK OF AMERICA, N.A., AS SECURITY AGENT
<b>Street Address:</b>	100 NORTH TRYON STREET
<b>Internal Address:</b>	SUITE 170
<b>City:</b>	CHARLOTTE
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	28202
<b>PROPERTY NUMBERS Total: 10</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	7241334
Patent Number:	7238741
Patent Number:	7167240
Patent Number:	6608132
Patent Number:	6533859
Patent Number:	6189768
Patent Number:	7847009
Application Number:	13402728
Application Number:	13391085
Application Number:	62267525
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(302)636-5454
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	202-408-3121 X62348
<b>Email:</b>	jpaterso@cscinfo.com
<b>Correspondent Name:</b>	CORPORATION SERVICE COMPANY
<b>Address Line 1:</b>	1090 VERMONT AVENUE NW, SUITE 430
<b>Address Line 4:</b>	WASHINGTON, D.C. 20005

<b>ATTORNEY DOCKET NUMBER:</b>	950610
<b>NAME OF SUBMITTER:</b>	JEAN PATERSON
<b>SIGNATURE:</b>	/jep/
<b>DATE SIGNED:</b>	01/08/2016
<b>Total Attachments: 6</b> source=1-8-15 Columbia Chemicals-PT#page1.tif source=1-8-15 Columbia Chemicals-PT#page2.tif source=1-8-15 Columbia Chemicals-PT#page3.tif source=1-8-15 Columbia Chemicals-PT#page4.tif source=1-8-15 Columbia Chemicals-PT#page5.tif source=1-8-15 Columbia Chemicals-PT#page6.tif	

## PATENT SECURITY AGREEMENT

This **PATENT SECURITY AGREEMENT**, dated 21 December, 2015, ("**Agreement**") is by Columbian Chemicals Company, a Delaware corporation (herein referred to as a "**Grantor**"), located at 1800 West Oak Commons Court, Marietta, Georgia, Atlanta in favor of Bank of America, N.A., in its capacity as Security Agent (herein referred to as "**Security Agent**") located at Level 20, Tower 2, Kowloon Commerce Centre, 51 Kwai Cheong Road, Kwai Chung Hong Kong.

**WHEREAS**, the Grantor, other grantors party thereto and Security Agent have entered into a Security Agreement (said Security Agreement, as it may hereafter be amended or otherwise modified from time to time is herein referred to as the "**Security Agreement**"); and

**WHEREAS**, pursuant to the Security Agreement, the Grantor has granted to the Security Agent, for the benefit of the Secured Parties, a security interest in all right, title and interest of the Grantor in all Intellectual Property, including the Patents, now owned or hereafter acquired by Grantor; and

**WHEREAS**, the Grantor has duly authorized the execution, delivery and performance of this Agreement;

**NOW, THEREFORE**, in consideration of the premises and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Definitions. Unless otherwise defined herein or the context otherwise requires, terms used in this Agreement, including its preamble and recitals, have the meanings provided or provided by reference in the Security Agreement.
2. Grant. The Grantor hereby confirms and grants to Security Agent, for the benefit of the Secured Parties, a security interest in all Grantor's right, title and interest in all of the following, now owned or hereafter acquired by Grantor: (a) all letters patent of the United States or any other country, all registrations and recording thereof, and all pending applications for letters patent of the United States or any other country, including registrations, recordings and application in the PTO or in any similar office or agency of the United States, any State or Territory thereof, including, but not limited to, those items listed on Schedule 1-A hereto, or any other country, (b) all reissues, continuations, divisions, continuations-in-part, substitutions, renewals or extensions thereof and the inventions disclosed or claimed therein, and (c) any agreement, now or hereafter in effect, granting to Grantor any right to make, have made, use or sell any inventions on which a Patent, now or hereafter owned by any third party, is in existence, and all rights of Grantor under any such agreement, and all Proceeds, Supporting Obligations and products of any and all of the foregoing (collectively, the "**Patent Collateral**") as collateral security for the prompt and complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of such Grantor's Obligations.
3. Purpose. This Agreement has been executed and delivered by the Grantor for the purpose of recording the grant of security interest herein with the United States Patent and Trademark Office. The security interest granted hereby has also been granted to the Security Agent, for the benefit of the Secured Parties pursuant to the Security Agreement. The Grantor hereby further acknowledges and affirms that the rights and remedies of Security Agent with respect to the grant of a security interest in the Patent Collateral made hereby are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein. The

Security Agreement (and all rights and remedies of the Security Agent thereunder) shall remain in full force and effect in accordance with its terms. In the event of any conflict between the Security Agreement and this Agreement, the terms of the Security Agreement shall control.

4. Further Assurances. The Grantor hereby further agrees to execute and deliver to the Security Agent any and all further documents and instruments, and do any and all further acts which the Security Agent (or its agents or designees) reasonably requests in order to record this Agreement and the Security Interest in the Patent Collateral.
5. Governing Law. THIS AGREEMENT SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAW OF THE STATE OF NEW YORK.
6. Counterparts. This Agreement may be executed in any number of counterparts (and by the different parties hereto on separate counterparts), each of which when so executed and delivered shall be an original and all of which, when taken together, shall together constitute a single contract.

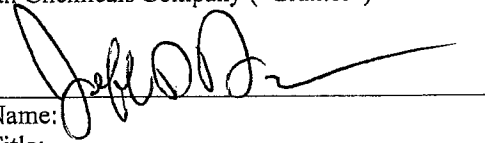
[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, intending to be legally bound, Grantor has caused this  
PATENT SECURITY AGREEMENT to be duly executed as of the date first written above.

Columbian Chemicals Company ("Grantor")

By:

Name:  
Title:



Agreed and Acknowledged:

BANK OF AMERICA, N.A.  
("Security Agent")

By:

Name:  
Title:

[Signature page for Patent Security Agreement – Columbian Chemicals Company]

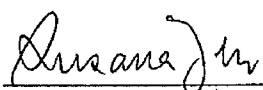
IN WITNESS WHEREOF, intending to be legally bound, Grantor has caused this  
PATENT SECURITY AGREEMENT to be duly executed as of the date first written above.

Columbian Chemicals Company ("Grantor")

By: \_\_\_\_\_  
Name:  
Title:

Agreed and Acknowledged:

BANK OF AMERICA, N.A.  
("Security Agent")

By:   
Name: SUSANA YEN  
Title: SENIOR VICE PRESIDENT

[Signature page for Patent Security Agreement - Columbian Chemicals Company]

### Schedule 1-A

Issued Patents:

OWNER	PATENT NO.	ISSUE DATE	DESCRIPTION
Columbian Chemicals Company	7,241,334	07/10/2007	Sulfonated carbonaceous materials
Columbian Chemicals Company	7,238,741	07/03/2007	Carbonaceous material with broad aggregate size distribution and improved dispersibility
Columbian Chemicals Company	7,167, 240	01/23/2007	Carbon black sampling for particle surface area measurement using laser-induced incandescence and reactor process control based thereon
Columbian Chemicals Company	6,608,132	08/19/2003	Carbon black with abraision and hysteresis advantages comparable to N121 and tear properties comparable to N115
Columbian Chemicals Company & Flexsys America L.P.	6,533,859	03/18/2003	Surface treated carbon black having improved dispersability in rubber and compositions of rubber therefrom having improved processability, rheological and dynamic mechanical properties
Columbian Chemicals Company	6,189,768	02/20/2001	Process and apparatus for pressing an external sleeve onto a tube for enhancing weld design
Columbian Chemicals Company	7,847,009	12/07/2010	Carbonaceous material with dissociated aggregate size and particle size distribution and improved dispersibility.

Applications:

OWNER	APPLICATION NO.	FILING DATE	DESCRIPTION
Columbian Chemicals Company	13/402,728*	08/26/2010	Apparatus and Processes for Production of Coal Derived Oil Products
Columbian Chemicals Company & Lanxess	13/391,085	07/27/2010	Use of Surface-Treated Carbon Blacks in an Elastomer to Reduce Compound Hysteresis and Tire Rolling Resistance and Improve Wet Traction
Columbian Chemicals Company	62/267,525**	12/15/2015	Carbon Black Composition with Sulfur Donor

\*Note: This application was assigned to Columbian Chemicals Company, but is no longer being pursued. It will become abandoned at the end of the current response period.

\*\*Note: This US Provisional Patent Application was recently filed. Assignments from the inventors to Columbian Chemicals Company have not yet been completed and recorded with the United States Patent and Trademark Office.