

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM482722

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	INTELLECTUAL PROPERTY SECOND LIEN SECURITY AGREEMENT REL
<b>SEQUENCE:</b>	2

## CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
Bank of America, N.A., as Collateral Agent		06/26/2018	Bank: North Carolina

## RECEIVING PARTY DATA

<b>Name:</b>	SOLENIS TECHNOLOGIES, L.P.
<b>Street Address:</b>	3 Beaver Valley Road
<b>City:</b>	Wilmington
<b>State/Country:</b>	DELAWARE
<b>Postal Code:</b>	19803
<b>Entity Type:</b>	Limited Partnership: DELAWARE

## PROPERTY NUMBERS Total: 120

Property Type	Number	Word Mark
Registration Number:	2012756	ACC/ME
Registration Number:	1452693	ADJUNCT
Registration Number:	1731963	ADVANTAGE
Registration Number:	3299620	ADVANTAGE
Registration Number:	3676920	ADVANTAGE
Registration Number:	1812634	ADVANTAGE PLUS
Registration Number:	1024421	AGK
Registration Number:	0976197	AMERCOR
Registration Number:	1069582	AMERFLOC
Registration Number:	1405406	AMERGIZE
Registration Number:	1012530	AMERGY
Registration Number:	1099925	AMEROYAL
Registration Number:	1053931	AMERPACK
Registration Number:	1038352	AMERSEP
Registration Number:	0969456	AMERSITE
Registration Number:	1039961	AMERSPERSE
Registration Number:	0996036	AMERSTAT

OP \$3015.00 2012756

TRADEMARK

Property Type	Number	Word Mark
Registration Number:	0973181	AMERTROL
Registration Number:	1038353	AMERZINE
Registration Number:	0613726	AQUAPEL
Registration Number:	0628890	AQUAPEL
Registration Number:	4481530	BIOBOND. IMPROVING THE SUSTAINABILITY OF
Registration Number:	1012512	BIOSPERSE
Registration Number:	3941911	BLUAGRO
Registration Number:	3952124	BLUAGRO LIVE
Registration Number:	3432380	BRINEHIB
Registration Number:	1792266	CHARGEPAK
Registration Number:	2089930	CHROMASET
Registration Number:	0920495	CREPETROL
Registration Number:	0593485	DE-AIREX
Registration Number:	0873681	DELFLOC
Registration Number:	0900513	DELSETTE
Registration Number:	1589568	DETAC
Registration Number:	3313261	DIMENSION
Registration Number:	1786375	DIOLTECH
Registration Number:	1480337	DREWAMINE
Registration Number:	1891882	DREWBROM
Registration Number:	1254199	DREWCHLOR
Registration Number:	1252665	DREWCLEAN
Registration Number:	1816545	DREWCOR
Registration Number:	1077204	DREWFAX
Registration Number:	0628085	DREWFLOC
Registration Number:	1125892	DREWGARD
Registration Number:	2170089	DREWGARD
Registration Number:	1979849	DREWPHOS
Registration Number:	1810344	DREWPLEX
Registration Number:	1281980	DREWPLUS
Registration Number:	1068788	DREWSPERSE
Registration Number:	1821051	DREW TRAX
Registration Number:	1810343	DREWTROL
Registration Number:	2433556	DREWZYME
Registration Number:	1796206	DWS
Registration Number:	3502125	EASYDREW
Registration Number:	3147114	EDGE
Registration Number:	2074233	ENVIROCARE

Property Type	Number	Word Mark
Registration Number:	4195439	ENVIROINNOVATION
Registration Number:	1252086	ENVIROMATE
Registration Number:	2973885	ENVIROPLUS
Registration Number:	2243806	FERROCLEAN
Registration Number:	1951344	HERCOBOND
Registration Number:	3164111	HERCOBOND
Registration Number:	0538235	HERCOFLEX
Registration Number:	0685356	HERCOLUBE
Registration Number:	0978867	HERCON
Registration Number:	0873263	HERCOSETT
Registration Number:	0780519	HERCULES
Registration Number:	1339831	HERCULES
Registration Number:	0363212	HERCULES
Registration Number:	2084283	HERCULES
Registration Number:	1441668	HI-PHASE
Registration Number:	2841357	IMPRESS
Registration Number:	2221000	INFINITY
Registration Number:	1852821	KYBREAK
Registration Number:	0559945	KYMENE
Registration Number:	1181734	MAXIGARD
Registration Number:	1467847	MEKOR
Registration Number:	1792264	MICROLUBE
Registration Number:	1271395	MILLSPERSE
Registration Number:	0916119	NEUPHOR
Registration Number:	1378696	OILBREAK
Registration Number:	1781208	ONGUARD
Registration Number:	1935767	ONGUARD
Registration Number:	4276527	OPTIFILL
Registration Number:	0556398	PARACOL
Registration Number:	2717199	PERFORM
Registration Number:	1525072	PERFORMAX
Registration Number:	0561627	PEXOL
Registration Number:	3427580	POLYCUP
Registration Number:	0863338	POLYCUP
Registration Number:	3378640	POLYSTABIL
Registration Number:	2031123	POWERBOOST
Registration Number:	1193821	PRAESTOL
Registration Number:	2405971	PREQUEL

Property Type	Number	Word Mark
Registration Number:	2220954	PRESSTIGE
Registration Number:	2223230	PROSOFT
Registration Number:	1777569	PROTECSOL
Registration Number:	2237591	PROTOCOL
Registration Number:	2220955	RENEW
Registration Number:	3658545	RENEW
Registration Number:	1229090	REZOSOL
Registration Number:	3427641	REZOSOL
Registration Number:	0761510	SCRIPSET
Registration Number:	5100796	SOLENIS
Registration Number:	5100798	
Registration Number:	5100797	SOLENIS
Registration Number:	2973666	SONOXIDE
Registration Number:	3272818	SOYAD
Registration Number:	2223229	SPECTRUM
Registration Number:	4890194	STRONG BONDS. TRUSTED SOLUTIONS.
Registration Number:	1769576	SUREPERSE
Registration Number:	1753497	SURETEX
Registration Number:	2167571	TALLOFIN
Registration Number:	1896880	TRAKSET
Registration Number:	2148216	ULTRA-PHASE
Registration Number:	1951669	ULTRA-SERV
Registration Number:	2044680	VALUGARD
Registration Number:	2235358	WICKIT
Registration Number:	4032470	ZALTA
Registration Number:	2429889	ZENIX
Registration Number:	4165709	ZENIX

**CORRESPONDENCE DATA**

**Fax Number:**

*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.*

**Phone:** 800-494-5225

**Email:** ipteam@cogencyglobal.com

**Correspondent Name:** Stewart Walsh

**Address Line 1:** 1025 Vermont Ave NW, Suite 1130

**Address Line 2:** Cogency Global Inc.

**Address Line 4:** Washington, D.C. 20005

**ATTORNEY DOCKET NUMBER:** F178174 TM 2L REL

<b>NAME OF SUBMITTER:</b>	Sonya Jackman
<b>SIGNATURE:</b>	/Sonya Jackman/
<b>DATE SIGNED:</b>	07/20/2018
<b>Total Attachments: 21</b> source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page2.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page3.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page4.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page5.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page6.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page7.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page8.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page9.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page10.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page11.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page12.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page13.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page14.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page15.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page16.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page17.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page18.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page19.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page20.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page21.tif source=Solenis - IP Second Lien Security Agreement Release (Trademarks)#page22.tif	

## INTELLECTUAL PROPERTY SECOND LIEN SECURITY AGREEMENT RELEASE

This INTELLECTUAL PROPERTY SECOND LIEN SECURITY AGREEMENT RELEASE (the “*Release*”) dated June 26, 2018, is made in favor of SOLENIS TECHNOLOGIES, L.P., a Delaware limited partnership (the “*Grantor*”) by Bank of America, N.A., as collateral agent (in such capacity, the “*Collateral Agent*”) for the Secured Parties. All capitalized terms used herein and not otherwise defined shall have the meaning assigned to such terms in the Second Lien Guarantee and Collateral Agreement (as defined below).

WHEREAS, the Grantors entered into that certain Second Lien Guarantee and Collateral Agreement, dated as of July 31, 2014 (as amended, amended and restated, waived, supplemented or otherwise modified from time to time, the “*Second Lien Security Agreement*”) among Solenis International, L.P., a Delaware limited partnership, the Subsidiary Borrowers from time to time party thereto, the other Domestic Subsidiaries of the Parent Borrower from time to time party thereto, Solenis Holdings, L.P., a Delaware limited partnership, Solenis Holdings Sub II B.V., a Dutch besloten vennootschap and the Collateral Agent;

WHEREAS, under the terms of the Second Lien Security Agreement, the Grantor granted to the Collateral Agent for the ratable benefit of the Secured Parties a security interest in and to certain intellectual property of the Grantor and the following agreements were executed and delivered by the Grantor in favor of the Collateral Agent (each as amended, amended and restated, supplemented or otherwise modified from time to time and, collectively, the “*Second Lien Intellectual Property Security Agreements*”): that certain Notice and Confirmation of Grant of Security Interests in Trademarks, dated as of July 31, 2014, by and between the Grantor and the Collateral Agent (the “*Second Lien Trademark Security Agreement*”), that certain Notice and Confirmation of Grant of Security Interests in Patents, dated as of July 31, 2014, by and between the Grantor and the Collateral Agent (the “*Second Lien Patent Security Agreement*”) and that certain Notice and Confirmation of Grant of Security Interests in Patents, dated as of February 9, 2015, by and between the Grantor and the Collateral Agent (the “*Supplemental Second Lien Patent Security Agreement*”);

WHEREAS, the Second Lien Trademark Security Agreement was recorded with the United States Patent and Trademark Office on August 20, 2014 at Reel 5348 and Frame 0518;

WHEREAS, the Second Lien Patent Security Agreement was recorded with the United States Patent and Trademark Office on August 14, 2014 at Reel 033535 and Frame 0847;

WHEREAS, the Supplemental Second Lien Patent Security Agreement was recorded with the United States Patent and Trademark Office on February 19, 2015 at Reel 035049 and Frame 0023; and

WHEREAS, in accordance with the provisions of the Second Lien Security Agreement, the indebtedness under has been paid in full, and the Collateral Agent now desires to terminate and release the entirety of its security interest in and to (i) the Trademarks granted under the Second Lien Trademark Security Agreement (including the Trademarks provided in Schedule A attached hereto), (ii) the Patents granted under the Second Lien Patent Security

Agreement (including the Patents provided in Schedule B attached hereto) and (iii) the Patents granted under the Supplemental Second Lien Patent Security Agreement (including the Patents provided in Schedule C attached hereto) (the foregoing, collectively, the “*Intellectual Property Collateral*”).

NOW, THEREFORE, for good and valuable consideration, including the satisfaction of all obligations, indebtedness and liabilities secured by the Intellectual Property Collateral, the receipt and sufficiency of which are hereby acknowledged, the Collateral Agent hereby agrees as follows:

SECTION 1. Release of Grant of Security. The Collateral Agent hereby terminates and releases to the Grantors its security interest in, and reassigns to the Grantor, without representation or warranty of any kind, any and all right, title and interest in and to the Intellectual Property Collateral, including the Intellectual Property Collateral listed on Schedules A, B, and C granted to it pursuant to the Second Lien Security Agreement and the Second Lien Intellectual Property Security Agreements, as applicable, and any right, title or interest of the Collateral Agent in such Intellectual Property Collateral shall hereby cease and become void.

SECTION 2. Recordation. The Collateral Agent authorizes and requests that the applicable officials of the United States Patent and Trademark Office record this Release.

SECTION 3. Further Assurances. The Collateral Agent shall execute and deliver to the Grantor all further releases and other documents (including without limitation Uniform Commercial Code termination statements), and take all other actions necessary or reasonably desirable for the release of such security interest.

SECTION 4. Execution in Counterparts. This Release may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

SECTION 5. Governing Law. This Release shall be governed by, and construed in accordance with, the laws of the State of New York.

[REST OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the Collateral Agent has caused this Release to be duly executed and delivered by its officer thereunto duly authorized as of the date first above written.

**BANK OF AMERICA, N.A.,**  
as Collateral Agent

By:

Name:

Title:

A handwritten signature in black ink, appearing to read "Paley Chen", is written over a horizontal line. The signature is cursive and stylized.

Paley Chen

Vice President



SCHEDULE A

<b>Mark</b>	<b>App. Date</b>	<b>App. No.</b>	<b>Reg. Date</b>	<b>Reg. No.</b>
ACC/ME	13-Mar-95	74/645207	29-Oct-96	2012756
ADJUNCT	17-May-84	73/480734	18-Aug-87	1452693
ADVANTAGE	10-Sep-90	74/096976	10-Nov-92	1731963
ADVANTAGE	7-Dec-05	78/768188	25-Sep-07	3299620
ADVANTAGE	13-Mar-07	77/129346	1-Sep-09	3676920
ADVANTAGE PLUS	26-Oct-92	74/325315	21-Dec-93	1812634
AGK	26-Aug-74	73/030427	11-Nov-75	1024421
AMERCOR	25-May-72	74/425531	8-Jan-74	976197
AMERFLOC	2-Aug-73	74/464574	12-Jul-77	1069582
AMERGIZE	25-Nov-85	73/570360	19-Aug-86	1405406
AMERGY	23-Jul-73	74/463713	3-Jun-75	1012530
AMEROYAL	26-Jan-77	73/113726	22-Aug-78	1099925
AMERPACK	28-Apr-76	73/085360	7-Dec-76	1053931
AMERSEP	24-Mar-75	73/047444	27-Apr-76	1038352
AMERSITE	25-May-72	72/425530	2-Oct-73	969456
AMERSPERSE	24-Jul-74	73/027605	25-May-76	1039961
AMERSTAT	17-Oct-73	73/003914	22-Oct-74	996036
AMERTROL	25-May-72	74/425529	20-Nov-73	973181
AMERZINE	24-Mar-75	73/047445	27-Apr-76	1038353
AQUAPEL	16-Aug-54	71/671739	11-Oct-55	613726
AQUAPEL	20-Jun-55	71/689839	19-Jun-56	628890
BIOBOND. IMPROVING THE SUSTAINABILITY OF PAPER	8-Aug-11	85/392062	11-Feb-14	4481530
BIOSPERSE	9-Aug-73	72/465225	3-Jun-75	1012512
BLUAGRO	19-Feb-10	77/939683	5-Apr-11	3941911
BLUAGRO LIVE	19-Feb-10	77/939714	26-Apr-11	3952124
BRINEHIB	10-May-07	77/177682	20-May-08	3432380
CHARGE PAC	9-Nov-92	74/329399	14-Sep-93	1792266
CHROMASET	8-Dec-95	75037756	19-Aug-97	2089930
CREPETROL	31-Aug-70	72/369482	21-Sep-71	920495
DE-AIREX	1-Oct-53	71/654053	10-Aug-54	593485
DELFLOC	20-Aug-68	72/305543	29-Jul-69	873681
DELSETTE	27-Jun-69	72/331196	13-Oct-90	900513
DETAC	13-Apr-89	73/793379	3-Apr-90	1589568
DIMENSION	25-Sep-06	77/006873	16-Oct-07	3313261

DIOLTECH	24-Aug-92	74/306803	10-Aug-93	1786375
DREWAMINE	3-Aug-87	73/676079	15-Mar-88	1480337
DREWBROM	7-Apr-94	74/509903	2-May-95	1891882
DREWCHLOR	20-Sep-1982	73/386693	18-Oct-83	1254199
DREWCLEAN	18-Jun-82	73/370276	4-Oct-83	1252665
DREWCOR	12-Nov-92	74/330264	18-Jan-94	1816545
DREWFAX	24-Aug-76	73/097610	15-Nov-77	1077204
DREWFLOC	19-Jul-55	71/691557	5-Jun-56	628085
DREWGARD	25-May-78	73/171812	16-Oct-79	1125892
DREWGARD	10-Jun-96	75/116659	30-Jun-98	2170089
DREWPHOS	31-Jul-95	74/708289	11-Jun-96	1979849
DREWPLEX	12-Nov-92	74/330261	14-Dec-93	1810344
DREWPLUS	3-Feb-83	73/412057	19-Jun-84	1281980
DREWSPERSE	9-Apr-76	73/083244	5-Jul-77	1068788
DREWTRAX and Design	15-Jun-92	74/284415	15-Feb-94	1821051
DREWTRAX	12-Nov-92	74/330259	14-Dec-93	1810343
DREWZYME	18-Mar-00	76/003445	6-Mar-01	2433556
DWS	12-Nov-92	74/330600	5-Oct-93	1796206
EASYDREW	11-Apr-06	76/658200	16-Sep-08	3502125
EDGE	3-Nov-03	76/560242	26-Sep-06	3147114
ENVIROCARE	12-Dec-94	74/609687	24-Jun-97	2074233
ENVIROINNOVATION	28-Feb-11	85/253265	21-Aug-12	4195439
ENVIROMATE	4-Jun-82	73/367970	27-Sep-83	1252086
ENVIROPLUS	3-Oct-03	78/309309	19-Jul-05	2973885
FERROCLEAN	7-Oct-97	75/369594	4-May-99	2243806
HERCOBOND	9-Mar-95	74/643621	23-Jan-96	1951344
HERCOBOND	11-Jul-05	78/667668	24-Oct-06	3164111
HERCOFLEX	27-Dec-49	71/589973	20-Feb-51	538235
HERCOLUBE	11-Sep-58	72/058786	22-Sep-59	685356
HERCON	5-Apr-73	72/453567	19-Feb-74	978867
HERCOSETT	13-Sep-68	72/307327	22-Jul-69	873263
HERCULES	17-Sep-63	72/177173	24-Nov-64	780519
HERCULES	3-Sep-82	73/383628	11-Jun-85	1339831
HERCULES	6-Aug-38	71/409313	13-Dec-38	363212
HERCULES and Design	1-Jul-94	74/546445	29-Jul-97	2084283
HI-PHASE	22-May-86	73/600223	9-Jun-87	1441668
IMPRESS	21-Feb-03	76/491936	11-May-04	2841357
INFINITY	25-Jul-97	75/330893	26-Jan-99	2221000
KYBREAK	13-Apr-92	74/269076	6-Sep-94	1852821
KYMENE	11-Jul-51	71/616318	10-Jun-52	559945

MAXIGARD	9-May-80	73/261393	15-Dec-81	1181734
MEKOR	4-Mar-87	73/647740	8-Dec-87	1467847
MICROLUBE	14-Oct-92	74/322240	14-Sep-93	1792264
MILLSPERSE	26-Jul-82	73/376511	27-Mar-84	1271395
NEUPHOR	6-Nov-70	72/375392	13-Jul-71	916119
OILBREAK	17-Sep-84	73/499816	21-Jan-86	1378696
ONGUARD	29-Oct-92	74/326408	13-Jul-93	1781208
ONGUARD	7-Dec-92	74/342160	14-Nov-95	1935767
OPTIFILL	16-Jun-11	85/347694	15-Jan-13	4276527
PARACOL	25-Apr-51	71/613129	18-Mar-52	556398
PERFORM	14-Feb-02	76/371220	20-May-03	2717199
PERFORMAX	25-Jul-88	73/742045	21-Feb-89	1525072
PEXOL	19-Sep-51	71/618965	15-Jul-52	561627
POLYCUP	4-Dec-06	77/056423	13-May-08	3427580
POLYCUP	21-Dec-67	72/287359	14-Jan-69	863338
POLYSTABIL	4-May-06	78/876156	5-Feb-08	3378640
POWERBOOST	9-Jun-95	74/686782	14-Jan-97	2031123
PRAESTOL	10-May-79	73/215061	20-Apr-82	1193821
PREQUEL	12-Oct-99	75/820850	21-Nov-00	2405971
PRESSTIGE	30-May-97	75/300985	26-Jan-99	2220954
PROSOFT	30-May-97	75/300987	9-Feb-99	2223230
PROTECSOL	15-Oct-92	74/322589	22-Jun-93	1777569
PROTOCOL	30-May-97	75/300986	6-Apr-99	2237591
RENEW	30-May-97	75/300988	26-Jan-99	2220955
RENEW	19-Feb-07	77/110444	21-Jul-09	3658545
REZOSOL	24-Jul-81	73/320457	8-Mar-83	1229090
REZOSOL	27-Dec-06	77/071943	13-May-08	3427641
SCRIPSET	27-Feb-63	72/163576	17-Dec-63	761510
SOLENIS	21-Jul-14	86/343389	13-Dec-16	5100796
SOLENIS	21-Jul-14	86/343406	13-Dec-16	5100798
SOLENIS	21-Jul-14	86/343396	13-Dec-16	5100797
SONOXIDE	26-Aug-03	78/292290	19-Jul-05	2973666
SOYAD	14-Dec-04	78/532069	31-Jul-07	3272818
SPECTRUM	30-May-97	75/300984	9-Feb-99	2223229
STRONG BONDS. TRUSTED SOLUTIONS.	21-Jul-14	86/343418	19-Jan-16	4890194
SURESPERSE	26-Jun-92	74/288334	11-May-93	1769576
SURETEX	26-Jun-92	74/288333	23-Feb-93	1753497
TALLOFIN	6-Jun-97	75/304454	23-Jun-98	2167571
TRAKSET	10-Nov-93	74/456126	30-May-95	1896880

ULTRA-PHASE	10-May-96	75/102170	31-Mar-98	2148216
ULTRA-SERV	19-Jan-93	74/349430	23-Jan-96	1951669
VALUGARD	17-Apr-95	74/661772	11-Mar-97	2044680
WICKIT	16-Sep-97	75/357710	23-Mar-99	2235358
ZALTA	15-Jun-10	85/063186	27-Sep-11	4032470
ZENIX	25-Feb-00	75/927875	20-Feb-01	2429889
ZENIX	10-May-11	85/316567	26-Jun-12	4165709

SCHEDULE B

Title	Pat. No.	App. No.	Filing Date	Patent No.	Issue Date
2-Oxetanone Sizing Agents Comprising Saturated and Unsaturated Tails, Paper Made With the 2-Oxetanone Sizing Agents, and Use of The Paper in High Speed Converting and Reprographic Operations	HER 4758	08/439057	08-May-1995	5725731	10-Mar-1998
A Novel Closed-Looped Performance-Based Control System	ASH 5492	09/221601	29-Dec-1998	6068012	30-May-2000
A Novel Closed-Looped Performance-Based Control System	ASH 5492	09/548626	13-Apr-2000	6510368	21-Jan-2003
A NOVEL PROCESS FOR AUTOMATIC CONTROL OF CHEMICAL TREATMENT OF BOILERS IN WET LAYUP	ASH 5953	11/287876	28-Nov-2005	7208117	24-Apr-2007
Adhesive Compositions	HER 10844	13/020069	03-Feb-2011	8399544	19-Mar-2013
Alkaline Paper Surface Sizing Agents, Method of Use and Surface Sized Paper	HER 4821D2	09/436342	08-Nov-1999	6325893	04-Dec-2001
Alkanolamine-stabilized dispersed rosin sizing agents and their preparation	HER 10629	12/069377	08-Feb-2008	7854800B2	21-Dec-2010
Alkanyl succinic anhydride compositions and the use thereof	HER 5068	09/583129	30-May-2000	6348132	19-Feb-2002
ALL-ORGANIC CORROSION INHIBITOR COMPOSITION AND USES	ASH 5600	09/419524	18-Oct-1999	6403028	11-Jun-2002
Amphoteric Polymer Resins that Increase the Rate of Sizing Development Amphoteric Polymer Resins that Increase the Rate of Sizing Development	HER 10078	10/424502	28-Apr-2003	7270727	18-Sep-2007
Anionic Copolymers Prepared in an Inverse Emulsion Matrix and Their Use in Preparing Cellulosic Fiber Compositions	HER 10213	10/313632	06-Dec-2002	7250448	31-Jul-2007
Anionic Copolymers Prepared in an Inverse Emulsion Matrix and Their Use in Preparing Cellulosic Fiber Compositions	HER 10213	11/880544	23-Jul-2007	7507781	24-Mar-2009
Anionic Cross-Linked Polymers in Water-in-Water Polymer Dispersions	ASH 7175	13/399269	17-Feb-2012		
Anionic Water-in-Water Polymer Dispersion, Method for the Production Thereof and Its Use	ASH 7073	10/593293	07-Mar-2005	8476391	02-Jul-2013
Apparatus, System and Method for Emulsifying Oil and Water	HER 10777	13/382177	04-Jan-2012		
APPARATUSES AND SYSTEMS FOR MONITORING FOULING OF AQUEOUS SYSTEMS INCLUDING ENHANCED HEAT EXCHANGER	ASH 5970	11/393943	31-Mar-2006	7581874	01-Sep-2009
Aqueous stabilized isothiazolone blends	HER P-970	08/396940	01-Mar-1995	5512213	30-Apr-1996
AUTO EFFICIENCY SENTRY SYSTEM FOR CHLORINE DIOXIDE	ASH 5836	11/269156	08-Nov-2005	7261821	28-Aug-2007
BIOCIDAL BLENDS OF QUATERNARY AMMONIUM COMPOUNDS AND CHLORIDE DIOXIDE	ASH 5362	08/396135	28-Feb-1995	5611938	18-Mar-1997
Biomolecular Inverse Emulsion Polymer	ASH 7157	13/264842	17-Oct-2011	8633278 B2	21-Jan-2014
Brown Stock Wash Aid for Drainage Aid and Strength Aid	HER 11056	61/901552	08-Nov-2013		
Calcium carbonate scale control line method	HER Z-1017	08/528460	14-Sep-1995	5562830	08-Oct-1996
Cationic compounds useful as drainage aids and stabilizers for rosin-based sizing agents	HER 4891	08/754355	22-Nov-1996	5912306	15-Jun-1999
CATIONIC CROSS-LINKED POLYMERS IN WATER-IN-WATER POLYMER DISPERSIONS	ASH 7174	13/399300	17-Feb-2012	8609757	17-Dec-2013

Cationic or amphoteric copolymers prepared in an inverse emulsion matrix and their use in preparing cellulosic fiber compositions	HER 10292	10/728145	04-Dec-2003	7396874	08-Jul-2008
Cationic Polymer Dispersions; Methods for Producing Said Dispersions and Use Thereof	ASH 7076	11/813136	12-Feb-2008	8822586	02-Sep-2014
Cationic Wet-Strength Resin Modified Pigments In Water-Based Latex Coating Applications	HER 10761	12/477432	03-Jun-2009	8758567	24-Jun-2014
Cationic Wet Strength Resin Modified Pigments In Water-Based Latex Coating Applications	HER 10761	12/789918	28-May-2010	9580866	28-Feb-2017
Cellulase Composition Containing Cellulase and Papermaking Polymers for Paper Dry Strength Applications	HER 10915	14/048404	08-Oct-2013	9011643	21-Apr-2015
Cellulose products and processes for preparing the same	HER 5026	09/459891	14-Dec-1999	6379501	30-Apr-2002
Chemical Additives and Use Thereof in Thin Stillage Processing Operations	HER 10906	13/370456	10-Feb-2012	8841469	23-Sep-2014
Clay Slurries and Use Thereof in Pulp and Papermaking Applications	HER 10678	12/381549	13-Mar-2009	8691052	08-Apr-2014
Composition and Method of Scale Control in Regulated Evaporative Systems	HER 11101	61/948829	06-Mar-2014		
Composition and Method of Scale Control in Regulated Evaporative Systems	HER 11101	14/250459	11-Apr-2014		
Composition and Use of Hydrogenated Alkyl Ketene Dimers	HER 10812	14/060921	23-Oct-2013		
Composition Comprising a Non-ionic Surfactant and an Ionic Polymer	ASH 7218	14/348977	01-Apr-2014		
Composition for inhibiting microbial adhesion on surfaces	HER H-1100	08/993085	09-Dec-1997	5942219	24-Aug-1999
COMPOSITION FOR REMOVING DISSOLVED OXYGEN FROM A FLUID	ASH 5714	09/927844	09-Aug-2001	6669853	30-Dec-2003
Compositions and Methods for Preparing Dispersions and Methods for Using the Dispersions	HER 4969	09/184458	28-Oct-1998	6123760	26-Sep-2000
Compositions for imparting desired properties to materials	HER 5002	09/613529	10-Jul-2000	6586520	01-Jul-2003
Compositions for Imparting Desired Properties to Materials	HER 5087	09/613425	10-Jul-2000	7317053	08-Jan-2008
CONTROL OF BARIUM SULFATE SCALING	ASH 5508	10/117014	05-Apr-2002	6620328	16-Sep-2003
Copolymer Blend Compositions For Use to Increase Paper Filler Content	HER 10710	12/562446	18-Sep-2009	8163134	24-Apr-2012
Copolymer Blend Compositions For Use to Increase Paper Filler Content	HER 10710	13/293170	10-Nov-2011	8518216	27-Aug-2013

Copolymer Blend Compositions For Use to Increase Paper Filler Content	HER 10710	13/873827	30-Apr-2013	9034146	19-May-2015
Copolymers for Avoiding Deposits in Water Supply Systems, Production and Use Thereof	ASH 7037	10/517614	14-Jun-2003	7547753	16-Jun-2009
Corn Oil Extraction Aid	HER 11051	61/870946	28-Aug-2013		
CORROSION INHIBITING COMPOSITION	ASH 5805	10/215218	08-Aug-2002	6613249	02-Sep-2003
CORROSION INHIBITING COMPOSITION	ASH 5839	10/624444	22-Jul-2003	6982062	03-Jan-2006
Creping Adhesives Made from Amine-Terminated Polyamidoamines	HER 10568	12/016494	18-Jan-2008	7943705	17-May-2011
Creping adhesives obtained by the reaction of polyamide and polyvinylalcohol with epichlorohydrin	HER 4979	09/224113	29-Dec-1998	6214932	10-Apr-2001
Creping Release Agent	HER 10853	13/153988	06-Jun-2011		
Creping Release Agents	HER 4754	08/643645	06-May-1996	5660687	26-Aug-1997
Creping Release Agents	HER 4754	08/848329	01-May-1997	5833806	10-Nov-1998
Defoamer Emulsion Compositions for Pulp Mill Applications	HER 10361	11/297025	08-Dec-2005	7893115	22-Feb-2011
Defoamers for pulp and papermaking applications	HER 10446	11/297024	08-Dec-2005	7879917	01-Feb-2011
Dehalogenation of Organohalogen-Containing Compounds	HER 4782C	08/487705	07-Jun-1995	5843763	01-Dec-1998
Dehalogenation of Polyamine, Neutral Curing Wet Strength Resins	HER 4789	08/482398	07-Jun-1995	5972691	26-Oct-1999
Dehalogenation Organohalogen-Containing Compounds	HER 4783	08/478799	07-Jun-1995	5871616	16-Feb-1999
Device and Method for Detecting Deposits	ASH 7221	14/367268	20-Dec-2012	9772312	26-Sep-2017
DEVICE AND PROCESS FOR TREATING CUTTING FLUIDS USING ULTRASOUND	ASH 5844	10/734103	10-Dec-2003	7048863	23-May-2006
DEVICE AND PROCESS FOR TREATING CUTTING FLUIDS USING ULTRASOUND	ASH 5844	11/371819	09-Mar-2006	7404906	29-Jul-2008
DEVICE AND PROCESS FOR TREATING CUTTING FLUIDS USING ULTRASOUND	ASH 5844	11/327193	06-Jan-2006	7514009	07-Apr-2009
Devices and Methods for Treating Cooling Fluids Utilized in Tire Manufacturing	ASH 5948	11/747079	10-May-2007	7448859	11-Nov-2008

Devices and Methods for Treating Fluids Utilized in Electrocoating Processes with Ultrasound	ASH 5936	11/629758	08-Aug-2007	9102553	11-Aug-2011
Diluents for crosslinker-containing adhesive compositions	HER 10638	12/287394	09-Oct-2008	8147968	03-Apr-2012
Diluents for crosslinker-containing adhesive compositions	HER 10638	13/406119	27-Feb-2012		
Dispersible Articles and Methods of Making the Same	HER 11021	14/255369	17-Apr-2014	9121137	1-Sep-2015
Electrochemical Generation of Chlorinated Urea Derivatives	HER 10923	13/910231	05-Jun-2013		
Emulsifier System for Rosin Sizing Agents	HER 4815	09/046019	18-Mar-1998	5846308	08-Dec-1998
Emulsifier System for Rosin Sizing Agents	HER 4815	09/207834	07-Dec-1998	6315824	13-Nov-2001
Emulsions for Removal and Prevention of Deposits	ASH 7158	13/771860	10-May-2013		
Enhanced Dry Strength and Drainage Performance by Combining Glyoxalated Acrylamide-Containing Polymers with Cationic Aqueous Dispersion Polymers	HER 10858	13/354893	20-Jan-2012	8636875	28-Jan-2014
Enhanced Surface Sizing Of Paper	HER 10709	12/178904	24-Jul-2008	7998311	16-Aug-2011
Enzymatic press felt treatment	HER 10249	10/412512	11-Apr-2003	7306702	11-Dec-2007
Enzymatic press felt treatment	HER 10249	12/001103	10-Dec-2007	7578904	25-Aug-2009
Enzyme-catalyzed polyamides and compositions and processes of preparing and using the same	HER 5074	09/592730	13-Jun-2000	6677427	13-Jan-2004
Esterified polysaccharide products and B-lactone ring opened ketene dimer products containing the compositions, and process of making the same	HER 5066	09/564575	05-May-2000	6528643	04-Mar-2003
Esterified polysaccharide products and B-lactone ring opened ketene dimer products containing the compositions, and process of making the same	HER 5066	10/068501	06-Feb-2002	6624298	23-Sep-2003
Felt and Equipment Surface Conditioner	HER 10498	11/472754	22-Jun-2006	7534324	19-May-2009
Fungicidal method	HER 5045	09/543733	05-Apr-2000	6428654	06-Aug-2002
GALVANIZED METAL CORROSION INHIBITOR	ASH 5499	09/287206	05-Apr-1999	6458320	01-Oct-2002
Gypsum Scale Inhibitors for Ore Slurry Systems in Hydro-Metallurgical Applications	HER 11033	61/890998	15-Oct-2013		
High Performance Fabric Release Composition and Use Thereof	HER 11015	14/253936	16-Apr-2014		



Highly Branched Polyamidoamines and Their Preparation	HER 4828	08/634226	18-Apr-1996	5786429	28-Jul-1998
Highly Branched Polyamidoamines and Their Preparation	HER 4828	09/017857	03-Feb-1998	5902862	11-May-1999
Highly Cationic Polymer Dispersions, Method for Producing them and Their Use	ASH 7075	11/722956	30-Nov-2005		
Hydrolyzed Starches as Grinding Aids for Mineral Ore Processing	HER 11013	14/299508	09-Jun-2014		
Hydrophobically Modified Poly (Ethylene Glycol) for Use in Pitch and Stickers Control in Pulp and Papermaking Process	HER 10571	11/881128	25-Jul-2007	8388806	05-Mar-2013
Hydrophobically Modified Poly(Aminoamines)	HER 10679	12/620962	18-Nov-2009	8506757	13-Aug-2013
Improved Retention and Drainage in the Manufacture of Paper	HER 10382	12/437887	08-May-2009	8308902	13-Nov-2012
Improved Retention and Drainage in the Manufacture of Paper	HER 10488	11/313505	21-Dec-2005	8206553	26-Jun-2012
Improved Retention and Drainage in the Manufacture of Paper	HER 10382	13/551202	17-Jul-2012	8932433	13-Jan-2015
Improved Tack of Particle Board Furnish	HER 10908	13/537372	29-Jun-2012		
Inversion of inverse emulsion polymers	HER 10322	11/011985	14-Dec-2004	7429625	30-Sep-2008
Lignin Nanoparticle Dispersion and Methods for Producing and Using the Same	HER 11061	61/915442	12-Dec-2013		
LIQUID METAL CLEANER FOR AQUEOUS SYSTEM	ASH 5429	09/153645	17-Aug-1998	6156129	05-Dec-2000
Low PH Soy Flour-Non Urea Diluent and Methods of Making Same	HER 10880	13/397829	16-Feb-2012		
Membrane Separation Process for Removing Residuals From Polyamine-Ephalohydrin Resins	HER 10454	11/856224	17-Sep-2007	7932349	26-Apr-2011
Membrane Separation Process for Removing Residuals From Polyamine-Ephalohydrin Resins	HER 10454	13/093527	25-Apr-2011	8101710	24-Jan-2012
Metal Oxides Dispersant Composition	ASH 5603	10/340318	10-Jan-2003	7204937	17-Apr-2007
Metal Oxides Dispersant Composition	ASH 5603	11/685408	13-Mar-2007	7857989	28-Dec-2010
METHOD AND APPARATUS FOR DETECTING MICROBIOLOGICAL FOULING IN AQUEOUS SYSTEMS	ASH 5337	08/538304	02-Oct-1995	5576481	19-Nov-1996
Method and Apparatus for Estimating Fouling Factor and/or Inverse Soluble Scale Thickness in Heat Transfer Equipment	HER 10983	14/105323	13-Dec-2013	9568375	14-Feb-2017

Method and Apparatus for Measuring Deposition of Particulate Contaminants in Pulp and Paper Slurries	HER 10682	12/276655	24-Nov-2008	8160305	17-Apr-2012
Method and Apparatus for Measuring Deposition of Particulate Contaminants in Pulp and Paper Slurries	HER 10682	13/405063	24-Feb-2012		
Method and apparatus for producing synergistic biocide	HER 10389	11/509141	24-Aug-2006	7311878	25-Dec-2007
Method and composition for inhibiting microbial adhesion on surfaces	W-1037	08/867135	2-Jun-97	6110381	29-Aug-00
Method and Device for Detecting and Analyzing Deposits	ASH 7220	14/367262	2-Dec-2012	9587935	7-Mar-2017
Method and Device for Treating a Liquid Medium	ASH 5826	09/214398	27-Aug-1999	6540922	01-Apr-2003
Method and Device for Treating a Liquid Medium	ASH 5826	10/358445	04-Feb-2003	6736979	18-May-2004
Method and Device for Treating a Liquid Medium	ASH 5826	11/833878	03-Aug-2007	7718073	18-May-2010
Method and Device for Treating a Liquid Medium	ASH 5826	10/838945	03-May-2004	7267778	11-Sep-2007
Method and Device for Treating a Liquid Medium	ASH 5826	12/778959	12-May-2010	8097170	17-Jan-2012
Method For Controlling Pitch and Stickers Deposition	HER 10172	10/444522	23-May-2003	7166192	23-Jan-2007
Method for dewatering drinking sludge using a water soluble block copolymer	HER S-1076	08/856218	14-May-1997	5800719	01-Sep-1998
Method for Dewatering Sludge	ASH 7203	13/982625	30-Jul-2013		
Method for enhancing bioical activity	HER W-981	08/431338	28-Apr-1995	5607597	04-Mar-1997
Method for Increasing the Advantages of Starch in Pulped Cellulosic Material in The Production of Paper and Paperboard	ASH 7194	13/818763	24-Aug-2011	8758562	24-Jun-2014
Method for Increasing the Advantages of Strength Aids in the Production of Paper and Paperboard	ASH 7215	14/240854	24-Aug-2012	9388533	12-Jul-2016
Method for inhibiting microbial adhesion on surfaces	HER W-980	08/430569	28-Apr-1995	5512186	30-Apr-1996
Method for inhibiting microbial adhesion on surfaces	HER W-980	08/638631	26-Apr-1996	5593599	14-Jan-1997
Method for inhibiting microbial adhesion on surfaces	W-1037	09/039967	16-Mar-98	6241898	5-Jun-01
Method for Making Hydrophobically Associative Polymers, Methods of Use and Compositions	HER 5023	09/455024	06-Dec-1999	6417268	09-Jul-2002

METHOD FOR PRODUCING AN AQUEOUS ACRYLAMIDE SOLUTION WITH A BIOCATALYST	ASH 7033	10/475100	25-Apr-2002	7309590	18-Dec-2007
Method for Production of Water-In Water Polymer Dispersions.	ASH 7030	10/432624	01-Dec-2001	7235110	29-Jan-2008
Method for Treating Aqueous Sludge, Material so Produced and the Use Thereof	ASH 7070	10/565236	28-May-2004	7553423	30-Jun-2009
Method for Treating Aqueous Sludge, Material so Produced and the Use Thereof	ASH 7070	12/477957	04-Jun-2009	7811458	12-Oct-2010
Method for Treatment of Microorganisms During Propagation, Conditioning and Fermentation Using HOPS Acid Extracts and Organic Acid	HER 10969	13/833522	15-Mar-2013	8778646	15-Jul-2014
Method for Treatment of Microorganisms During Propagation, Conditioning and Fermentation Using HOPS Acid Extracts and Organic Acid	HER 10969	14/212251	14-Mar-2014	8772002	08-Jul-2014
Method of Optimized Process Control Strategy for Automatic Feeding of Corn Oil Extraction Aid	HER 10976	61/907638	22-Nov-2013		
Method of Treating Paper Forming Wire Surface	HER 10874	13/214708	22-Aug-2011	8524042	03-Sep-2013
Methods and compositions for treating stickies	HER L-1078	09/317212	24-May-1999	6150452	21-Nov-2000
Methods for inhibiting organic contaminant deposition in pulp and papermaking systems	HER N-1060	09/016180	30-Jan-1998	6143800	07-Nov-2000
Methods for inhibiting the deposition of organic contaminants in pulp and papermaking systems using a composition comprising of polyvinyl alcohol and gelatin	HER N-978	08/421349	12-Apr-1995	5536363	16-Jul-1996
Methods for inhibiting the deposition of organic contaminants in pulp and papermaking systems using a composition comprising of polyvinyl alcohol and gelatin	HER N-978	08/907325	06-Aug-1997	5866618	02-Feb-1999
Methods for inhibiting the deposition of organic contaminants in pulp and papermaking systems using a composition comprising of polyvinyl alcohol and gelatin	HER N-978	08/932136	16-Sep-1997	5952394	14-Sep-1999
METHODS FOR MONITORING FOULING OF AQUEOUS SYSTEMS INCLUDING ENHANCED HEAT EXCHANGER TUBES	ASH 7018	11/393823	31-Mar-2006	7594430	29-Sep-2009
Methods of making and using creping adhesives comprised of polyamine-ephalohydrin resin/poly(vinyl alcohol) mixtures	HER 5021	10/191952	09-Jul-2002	6808597	26-Oct-2004
Methods of using hop acids to control organisms	HER 5036X	09/521222	08-Mar-2000	6547971	15-Apr-2003
Methyl acrylate-diamine based polyamide resins and processes for producing the same	HER 10229	10/032651	27-Dec-2001	6667384	23-Dec-2003
Michael Addition Adducts as Additives for Paper and Papermaking	HER 10575	11/804360	18-May-2007	7902312	08-Mar-2011
MICROEMULSION WITH DECREASED ODOR	ASH 5340	08/732124	15-Oct-1996	5723430	03-Mar-1998
Modified Vinylamine Containing Polymers As Additives in Papermaking	HER 11040	61/980336	16-Apr-2014		

Modified Vinylamine-Containing Polymers as Additives in Papermaking	HER 10644	12/22/1220	31-Jul-2008	8604134	10-Dec-2013
Neutral Cleaners for Removal and Inhibition of Contaminants in Aqueous Systems	HER 11054	61/941737	19-Feb-2014		
Non-Aqueous Release from Paper Machine Equipment	HER 10159	09/866830	29-May-2001	6558513	06-May-2003
Non-Oxidizing Biocide Feeder Filled as: CHEMICAL DISSOLVING DISPENSER	ASH 7225	13/463348	03-May-2012		
Oil/grease- and water-sizing agent for treatment of cellulose	HER 10257	10/121880	12-Apr-2002	6951962	04-Oct-2005
ON-LINE REMOVAL OF COPPER DEPOSITS ON STEAM TURBINE BLADES	ASH 5705	10/067090	04-Feb-2002	6557348	06-May-2003
Onsite Emulsification of Defoamer for Brownstock Washing of Pulp	HER 11048	61/935366	04-Feb-2014		
Organic Acid Antimicrobial Compositions	HER 11027	61/953,416	14-Mar-2014		
Organopolysilicone Polyether Drainage Aid	HER 10914	13/455768	25-Apr-2012	9181398	10-Nov-2015
Oxidation in solid state of oxidizable galactose type of alcohol configuration containing polymer	HER 4937	09/001789	31-Dec-1997	6124124	26-Sep-2000
Paper Sizing Composition	HER 10830	12/971172	17-Dec-2010	8632659	21-Jan-2014
Paper sizing composition	HER 4991	09/293051	16-Apr-1999	6268414	31-Jul-2001
Paper Sizing Composition	HER 10830	14/097711	05-Dec-2013	9028650	12-May-2015
Papermaking Additives for Roll Release Improvement	HER 10871	13/214472	22-Aug-2011	8865263	21-Oct-2014
PERFORMANCE-BASED CONTROL SYSTEM	ASH 5354	08/610146	29-Feb-1996	5855791	05-Jan-1999
Phosphate Stabilizing Compositions	ASH 5698	09/737534	15-Dec-2000	6503400	07-Jan-2003
PITCH CONTROL COMPOSITION	ASH 5370	08/584967	11-Jan-1996	5702644	30-Dec-1997
Pitch Control Composition	ASH 5404	08/689193	05-Aug-1996	7052579	30-May-2006
PITCH CONTROL COMPOSITION AND PROCESS FOR INHIBITING PITCH DEPOSITION	ASH 5335	08/432077	01-May-1995	5618861	08-Apr-1997
PITCH CONTROL COMPOSITION BASED ON BLEND OF DERIVATIZED CATIONIC GUAR AND STYRENE MALEIC ANHYDRIDE COPOLYMER	ASH 5380	08/692829	30-Jul-1996	5744003	28-Apr-1998

Polyalkanolamide tackifying resins for creping adhesives	HER 4918	08/891199	10-Jul-1997	6133405	17-Oct-2000
Polyallyldiallylamine-epihalohydrin resins as wet strength additives for papermaking and process for making the same	HER 10131	10/336468	03-Jan-2003	6906133	14-Jun-2005
Polyethylene Oxide Treatment for Conventional Flocculants and Strength Agents	HER 11045	61/864262	09-Aug-2013		
POLYMERIZATE COMPOSITION AND A METHOD FOR PRODUCING THE SAME	ASH 7049	10/069721	02-Aug-2000	7335709	26-Feb-2008
Process and Apparatus for Generating Haloamine Biocide	HER 10364	11/698475	25-Jan-2007	8747740	10-Jun-2014
PROCESS AND COMPOSITION FOR REMOVING PRECIOUS METALS FROM ACTIVATED CARBON	ASH 5613	09/457592	09-Dec-1999	6238632	29-May-2001
Process for controlling deposit of sticky material	HER 5004	09/363225	30-Jul-1999	6171445	09-Jan-2001
PROCESS FOR DIGESTING WOODCHIPS AND DIGESTER ADDITIVES	ASH 5637 II	09/917868	26-Jul-2001	6551452	22-Apr-2003
PROCESS FOR DIGESTING WOODCHIPS AND DIGESTER ADDITIVES	ASH 5637 II	10/377527	28-Feb-2003	6649023	18-Nov-2003
PROCESS FOR DIGESTING WOODCHIPS WITH A SULTAINE AND A POLYGLYCOSIDE	ASH 5637 I	09/915750	26-Jul-2001	6740199	25-May-2004
PROCESS FOR DISPERSING IRON OXIDE IN STEAM GENERATING BOILERS	ASH 5537	09/183428	30-Oct-1998	6337047	08-Jan-2002
Process for Filtration Enhancement of Aqueous Dispersions	HER 10966	14/026459	13-Sep-2013		
Process for Improving the Flow Rate of an Aqueous Dispersion	ASH 7204	14/003599	06-Sep-2013	920642	22-Mar-2016
Process for Improving the Rheological Properties of Aqueous Dispersions	HER 10970	14/030529	18-Sep-2013		
Process for increasing the dry strength of paper	HER 10222	10/118384	08-Apr-2002	6723204	20-Apr-2004
Process for increasing the refiner production rate and/or decreasing the specific energy of pulping wood	HER 10341	11/002594	02-Dec-2004	7726592	01-Jun-2010
Process for increasing the refiner production rate and/or decreasing the specific energy of pulping wood	HER 10341	12/752241	01-Apr-2010	7981247	19-Jul-2011
PROCESS FOR INCREASING THE SYSTEM THERMAL CAPABILITY OF A SPLASH FILLED COOLING TOWER	ASH 5297	08/417041	04-Apr-1995	5565019	15-Oct-1996
PROCESS FOR INHIBITING SCALE	ASH 5693	10/147660	16-May-2002	6858180	22-Feb-2005
PROCESS FOR INHIBITING SCALE AND FOULING ON THE METAL SURFACES EXPOSED TO AN AQUEOUS SYSTEM	ASH 5774	10/198781	18-Jul-2002	6797177	28-Sep-2004

Process for Isomerization of Alpha Olefin to Internal Olefins	HER 10315	10/968608	19-Oct-2004	7271308	18-Sep-2007
Process for Making Epichlorohydrin Resins	HER 4643	08/217084	24-Mar-1994	5714552	03-Feb-1998
PROCESS FOR REDUCING CONTAMINANTS IN PROCESS WATER AND/OR CONDENSATE	ASH 5887	11/143914	02-Jun-2005	7264729	04-Sep-2007
PROCESS FOR REMOVING RUST FROM METAL SURFACES	ASH 5687	09/952489	14-Sep-2001	6514350	04-Feb-2003
PROCESS FOR SAFELY DECONTAMINATING THE CHILL WATER USED IN MEAT PROCESSING	ASH 5806	10/693812	24-Oct-2003	7244365	17-Jul-2007
PROCESS FOR SURFACE SIZING PAPER AND PAPER PREPARED THEREBY	HER 4908	08/847841	28-Apr-1997	6051107	18-Apr-2000
PROCESS FOR TREATING A LIQUID MEDIUM USING ULTRASOUND	ASH 5826 5828P	10/533679	04-Nov-2003	7632413	15-Dec-2009
PROCESS OF REPULPING WET STRENGTH PAPER	HER 4939	09/336217	04-Dec-1998	6171440	09-Jan-2001
Process of Using Paper Containing Alkaline Sizing Agents with Improved Conversion Capability	HER 4623	08/192570	07-Feb-1994	5685815	11-Nov-1997
Process to Enhancing Dry Strength of Paper by Treatment with Vinylamine-Containing Polymers and Acrylamide-Containing Polymers	HER 10829	12/975441	22-Dec-2010		
Process to Produce an Acylated Vinylamine-Containing Polymer and Its Application as a Papermaking Additive	HER 10840	13/446486	13-Apr-2012	8614279	24-Dec-2013
PROCESS TO REDUCE THE AOX LEVEL OF WET STRENGTH RESINS BY TREATMENT WITH BASE	HER 4940	09/224107	22-Dec-1998	6429267	06-Aug-2002
Processes and Compositions for Repulping Wet Strength Paper and Paper Products	HER 4881	08/714432	16-Sep-1996	5904808	18-May-1999
Protein Adhesive Formulations with Amine-Epichlorohydrin and Isocyanate Additives	HER 10895	13/116359	26-May-2011	8845851	30-Sep-2014
Protein/Cationic Polymer Compositions Having Reduced Viscosity	HER 10745	13/847685	20-Mar-2013		
Proteins for use as pitch and stickles control agents in pulp and papermaking processes	HER 5035	09/815367	22-Mar-2001	6527915	04-Mar-2003
Proteins for use as pitch and stickles control agents in pulp and papermaking processes	HER 5035	09/816735	22-Mar-2001	6461477	08-Oct-2002
Pulping Additives for a Reduction of Resin from Kraft Pulp	HER 10694	12/535983	05-Aug-2009	8052840	08-Nov-2011
Quaternized Polyvinylamines as Dry Strength Additives for Paper	HER 10746	12/696237	29-Jan-2010	8518215	27-Aug-2013
Reactive Cationic Resins for Use as Dry and Wet Strength Agents inSulfite Ion-Containing Papermaking Systems	HER 10381	11/304345	15-Dec-2005	7828934	09-Nov-2010

Reactive Cationic Resins for Use as Dry and Wet Strength Agents inSulfite Ion-Containing Papermaking Systems	HER 10381	12/941620	08-Nov-2010	8771469	08-Jul-2014
Reduced Byproduct High Solids Polyamine-Epithalohydrin Compositions	HER 10086	10/013049	10-Dec-2001	7303652	04-Dec-2007
Reduced byproduct polyamine-epithalohydrin resins	HER 4997	09/592681	12-Jun-2000	6554961	29-Apr-2003
Reduced byproduct polyamine-epithalohydrin resins	HER 4997	10/396155	25-Mar-2003	7175740	13-Feb-2007
Release Agent for Rolls and Method for Improving Release Properties of Rolls	HER 1-9148	09/051438	15-Oct-1996	6139911	31-Oct-2000
Repulping Wet Strength Paper and Paperboard with Persulfate and a Carbonate Buffer	HER 4499C	08/479489	07-Jun-1995	5674358	07-Oct-1997
Resin compositions for making wet and dry strength paper and their use as creping adhesives	HER 4899	08/788731	23-Jan-1997	5994449	30-Nov-1999
Resins of amphoterie aldehyde polymers and use of said resins as temporary wet-strength or dry-strength resins for paper	HER 4915	08/866364	30-May-1997	6197919	06-Mar-2001
Retention and drainage aids	HER 10365	11/301804	13-Dec-2005	7615135	10-Nov-2009
SCALE AND/OR CORROSION INHIBITING COMPOSITION	ASH 5571	09/238850	28-Jan-1999	6207079	27-Mar-2001
SCALE AND/OR CORROSION INHIBITING COMPOSITION	ASH 5571	09/630673	01-Aug-2000	6464900	15-Oct-2002
SCALE INHIBITOR FOR AN AQUEOUS SYSTEM	ASH 5518	10/156990	29-May-2002	6846452	25-Jan-2005
Silo System for Additive-Shipments	HER 4920	08/900805	25-Jul-1997	6294645	25-Sep-2001
Silyl-Linked Polyamidesamines and Their Preparation	HER 4846	08/665965	19-Jun-1996	5990333	23-Nov-1999
Sizing Composition	HER 10885	13/435107	30-Mar-2012	8871055	28-Oct-2014
SODIUM SILICATE CORROSION INHIBITOR BLEND FOR AQUEOUS SYSTEM	ASH 5323	08/317133	03-Oct-1994	5578246	26-Nov-1996
Solid Biocidal Compositions and Methods of Using the Same	HER 10354	14/079079	13-Nov-2013		
Solid Chemical Dissolver and Methods	ASH 7196	13/031724	22-Feb-2011	8852442	7-Oct-2014
Soy-Based Adhesives with Improved Low Viscosity	HER 10918	61/880474	20-Sep-2013		
Stabilizer for creping adhesives	HER 4963	09/135428	17-Aug-1998	6280571	28-Aug-2001

Stable Acid Denatured Soy/Urea Adhesives and Methods of Making Same	HER 10811	12/869848	27-Aug-2010	8465581	18-Jun-2013
Stable Adhesives From Urea-Denatured Soy Flour	HER 10808	12/507247	20-Jul-2009		
Stable and Aqueous Compositions of Polyvinylamines with Cationic Starch, and Utility for Papermaking	HER 10653	13/081763	07-Apr-2011	8444818	21-May-2013
STABLE MICROEMULSION CLEANERS HAVING LOW VOLATILE ORGANIC CONTENT	ASH 5367	08/835865	08-Apr-1997	5972874	26-Oct-1999
Sterilization Process	HER 1-8194	08/199273	22-Aug-1994	5540885	30-Jul-1996
Sulfate Scale Control in Low pH Aqueous Systems	HER 10936	13/889710	08-May-2013		
Surface Application of Polymers and Polymer Mixtures to Improve Paper Strength	HER 10765	12/940197	05-Nov-2010	8696869 B2	15-Apr-2014
Surface Application of Polymers to Improve Paper Strength	HER 10888	13/285382	31-Oct-2011	8900412	2-Dec-2014
Synergistic Combinations of Organic Acids Useful for Controlling Microorganisms in Industrial Processes	HER 10968	13/834259	15-Mar-2013	9555018	31-Jan-2017
Synergistic biocidal mixtures	HER 10177	10/266509	08-Oct-2002	7008545	07-Mar-2006
Synergistic biocide and process for controlling growth of microorganisms	HER 10388	11/509158	24-Aug-2006	7820060	26-Oct-2010
Synergistic biocide and process for controlling growth of microorganisms	HER 10388	12/911463	25-Oct-2010	8613859	24-Dec-2013
Synergistic Blends of Antimicrobials Useful for Controlling Microorganisms in Industrial Processes	HER 10931	14/211221	14-Mar-2014		
Synergistic Blends of Antimicrobials Useful for Controlling Microorganisms in Industrial Processes	HER 10953	14/211320	14-Mar-2014		
Synergistic Combinations of Monochlorurea and Modified Monochlorureas	HER 10920	14/212804	14-Mar-2014		
Synthesis of high solids resins from amine terminated polyamides	HER 10305	10/404940	01-Apr-2003	6908983	21-Jun-2005
Synthesis of High Solids-Content Wet-Strength Resin	HER 4777D	08/487782	07-Jun-1995	5644021	01-Jul-1997
Synthesis of High Solids-Content Wet-Strength Resin	HER 4872W	08/695258	09-Aug-1996	5668246	16-Sep-1997
System and Methods of Determining Liquid Phase Turbidity of Multiphase Wastewater	HER 10943	14/075613	08-Nov-2013		
Tertiary amine polyamidoamine-ephthalohydrin polymers	HER 4948	09/071902	04-May-1998	6111032	29-Aug-2000



Treatment of Resins to Lower Levels of CPD-producing Species and Improve Gelation Stability	HER 10310	10/838636	04-May-2004	7081512	25-Jul-2006
Use of Monochlorea To Treat Industrial Waters	HER 10782	12/823253	25-Jun-2010	8420012	16-Apr-2013
Vinylamine Containing Copolymer Microparticles As Additives in Papermaking	HER 10863	13/666443	01-Nov-2012	8894816	25-Nov-2014
Water-Resistant Vegetable Protein Adhesive Dispersion Compositions	HER 10806	11/099175	04-Apr-2005	7345136	18-Mar-2008
Water-Soluble Cationic Copolymers and Their Use as Drainage Retention Aids in Papermaking Processes	HER 1-8950	08/424749	18-Apr-1995	5473033	05-Dec-1995
WATER-SOLUBLE CATIONIC COPOLYMERS AND THEIR USE AS FLOCCULANTS	HER 1-9285	08/771361	16-Dec-96	5720888	24-Feb-98
Water-Soluble Cationic Copolymers and Their Use as Flocculants and Drainage Retention Aids	HER 1-9151	08/523975	06-Sep-1995	5681912	28-Oct-1997
Wet Strength Resins Having Reduced Levels of Organic Halogen By-Products	HER 4727	08/355925	14-Dec-1994	5614597	25-Mar-1997

SCHEDULE C

<b>Patent Number</b>	<b>Patent Title</b>	<b>Owner</b>	<b>Filing Date</b>	<b>Issue Date</b>
US 7744722	Methods for creping paper	Solenis Technologies, L.P.	June 15, 2006	June 29, 2010
US 8147649	Creping adhesive modifier and methods for producing paper products	Solenis Technologies, L.P.	June 28, 2010	April 3, 2012
US 8608904	Creping adhesive modifier and methods for producing paper products	Solenis Technologies, L.P.	April 2, 2012	December 17, 2013