



Issued Date: Sept.30th, 2016

Revised date: Jul. 19th, 2018

Subject: SVHC (Substance of Very High Concern) of REACH Compliance

Surge Components Inc. confirms that all its capacitors have been evaluated against Regulation (EC) 1907/2006 of the European Parliament, “Registration, Evaluation, and Authorization of Chemicals (REACH), as interpreted by EU Court of Justice decision C-106/14 of 10 September 2015 and is committed to provide our customers with information about substances in its products as required.

Surge Components Inc. capacitors meet REACH SVHC (Substance of Very High Concern updated by ECHA in June/2018) requirements as specified in table listed below.

Surge Components Inc. will continue to monitor the developments of REACH and is committed to fulfilling our responsibilities to ensure a high level of protection of human health and the environment.

No	Substance Name	CAS NO	EC NO	Application	Remark
1	Anthracene	120-12-7			<1000PPM
2	4,4"-Diaminodiphenylmethane	101-77-9			<1000PPM
3	Dibutyl phthalate	84-74-2		Plasticizer,etc	<1000PPM
4	Hexabromocyclododecane(HBCDD)	25637-99-4		Flame retardant	<1000PPM
5	Cobalt dichloride	7646-79-9		Humidity Indicator	<1000PPM
6	Diasenic pentaoxide	1303-28-2			<1000PPM
7	Diasenic trioxide	1327-53-3			<1000PPM
8	Sodium dichromate dehydrate	7789-12-0			<1000PPM
9	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2		Aroma	<1000PPM
10	Bis (2-ethyl(hexyl)phthalate)(DEHP)	117-81-7		Plasticizer,etc	<1000PPM
11	Alkanes,C10-13,chloro(Short Chain Chlorinated Paraffins)	85535-84-8		Plasticizer,etc	<1000PPM
12	Bis(tributyltin)oxide	56-35-9		Insecticide etc	<1000PPM
13	Lead hydrogen arsenate	7784-40-9			<1000PPM
14	Triethyl arsenate	15606-95-8			<1000PPM
15	Benzyl butyl phthalate	85-68-7		Plasticizer,etc	<1000PPM
16	Anthracene oil	90640-80-5	292-602-7		<1000PPM
17	Anthracene oil, anthracene paste, distn, lights	91995-17-4	295-278-5		<1000PPM
18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9		<1000PPM
19	Anthracene oil, anthracene-low	90640-82-7	292-603-2		<1000PPM
20	Anthracene oil, anthracene paste	90640-81-6	292-604-8		<1000PPM
21	Coal tar pitch, high temperature	65996-93-2	266-028-2		<1000PPM
22	Acrylamide	1979-6-1	201-173-7		<1000PPM



## SURGE COMPONENTS INC.

No	Substance Name	CAS NO	EC NO	Application	Remark	
23	Aluminosilicate, Refractory Ceramic Fibers		650-017-00-8**		<1000PPM	
24	Zirconia Aluminosilicate, Refractory Ceramic Fibres		650-017-00-8**		<1000PPM	
25	2,4-Dinitrotoluene	121-14-2	204-450-0		<1000PPM	
26	Diisobutyl phthalate	84-69-5	201-553-2		<1000PPM	
27	Lead chromate	7758-97-6	231-846-0		<1000PPM	
28	Lead chromate molybdate sulphate red(C.I.Pigment Red 104)	12656-85-8	235-759-9		<1000PPM	
29	Lead sulfochromate yellow(C.I.Pigment Yellow 34)	1344-37-2	215-693-7		<1000PPM	
30	Tris(2-chloroethyl) phosphate	115-96-8	204-118-5		<1000PPM	
31	Trichloroethylene	1979-1-6	201-167-4		<1000PPM	
32	Boric acid	10043-35-3	233-139-2		<1000PPM	
		11113-50-1	234-343-4		<1000PPM	
33	Disodium tetraborate, anhydrous	1330-43-4	215-540-4		<1000PPM	
		12179-04-3			<1000PPM	
		1303-96-4			<1000PPM	
34	Tetraboron disodium heptaoxide, hydrate	12267-73-1	235-541-3		<1000PPM	
35	Sodium chromate	7775-11-3	231-889-5		<1000PPM	
36	Potassium chromate	7789-00-6	232-140-5		<1000PPM	
37	Ammonium dichromate	7789-9-5	232-143-1		<1000PPM	
38	Potassium dichromate	7778-50-9	231-906-6		<1000PPM	
39	Cobalt sulphate	10124-43-3	233-334-2		<1000PPM	
40	Cobalt dinitrate	10141-05-6	233-402-1		<1000PPM	
41	Cobalt carbonate	513-79-1	208-169-4		<1000PPM	
42	Cobalt diacetate	71-48-7	200-755-8		<1000PPM	
43	2-Methoxyethanol	109-86-4	203-713-7		<1000PPM	
44	2-Ethoxyethanol	110-80-5	203-804-1		<1000PPM	
45	Trioxochromium	1333-82-0	215-607-8		<1000PPM	
46	Acids generated from chromium trioxide and their oligomers:	Chromic acid	7738-94-5	231-801-5		<1000PPM
		Dichromic acid	13530-68-2	236-881-5		<1000PPM
		Oligomers of chromic acid and dichromic acid	-			
47	2-ethoxyethyl acetate	111-15-9	203-839-2		<1000PPM	



## SURGE COMPONENTS INC.

No	Substance Name	CAS NO	EC NO	Application	Remark
48	Strontium Chromate	7789-6-2	232-142-6		<1000PPM
49	(1,2-benzenedicarboxylic Acid, di-C7-11-branched and Linear Alkyl Esters)	68515-42-4	271-084-6		<1000PPM
50	Hydrazine	7803-57-8 302-01-2	206-114-9		<1000PPM
51	1-methyl-2-pyrrolidone	872-50-4	212-828-1		<1000PPM
52	(1,2,3-trichloropropane)	96-18-4	202-486-1		<1000PPM
53	(1,2-benzenedicarboxylic Acid, di-C6-8-branched Alkyl Esters, C7-rich)	71888-89-6	276-158-1		<1000PPM
54	Dichromium tris(chromate)	24613-89-6	246-356-2		<1000PPM
55	Potassium hydroxyoctaoxodizincatedi-chromate	11103-86-9	234-329-8		<1000PPM
56	Pentazinc chromate octahydroxide	49663-84-5	256-418-0		<1000PPM
57	Aluminosilicate Refractory Ceramic Fibres (RCF)	-	-		<1000PPM
58	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)	-	-		<1000PPM
59	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1		<1000PPM
60	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6		<1000PPM
61	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1		<1000PPM
62	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	205-426-2		<1000PPM
63	1,2-Dichloroethane 1,2	107-06-2	203-458-1		<1000PPM
64	Bis(2-methoxyethyl) ether	111-96-6	203-924-4		<1000PPM
65	Arsenic acid	7778-39-4	231-901-9		<1000PPM
66	Calcium arsenate	7778-44-1	231-904-5		<1000PPM
67	Trilead diarsenate	3687-31-8	222-979-5		<1000PPM
68	N,N-dimethylacetamide (DMAC) N,N	127-19-5	204-826-4		<1000PPM
69	2,2'-dichloro-4,4'-methylenedianiline (MOCA) 4,4'	101-14-4	202-918-9		<1000PPM
70	Phenolphthalein	1977-9-8	201-004-7		<1000PPM
71	Lead azide Lead diazide	13424-46-9	236-542-1		<1000PPM
72	Lead styphnate	15245-44-0	239-290-0		<1000PPM
73	Lead dipicrate	6477-64-1	229-335-2		<1000PPM



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No	Substance Name	CAS NO	EC NO	Application	Remark
74	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3		<1000PPM
75	1, 2-dimethoxyethane;ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9		<1000PPM
76	Diboron trioxide	1303-86-2	215-125-8		<1000PPM
77	Formamide	1975-12-7	200-842-0		<1000PPM
78	Lead(II)bis(methanesulfonate)	17570-76-2	401-750-5		<1000PPM
79	TGIC(1,3,5-tris(oxiranylmethyl)-1,3,5-triazin e-2,4,6(1H,3H,5H)-trione)	2451-62-9	219-514-3		<1000PPM
80	$\beta$ -TGIC(1,3,5-tris[(2S and2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4, 6-(1H,3H,5H)-trione)	59653-74- 6	423-400-0		<1000PPM
81	4,4'-bis(dimethylamino)benzophenone(Mic hler's ketone)	90-94-8	202-027-5		<1000PPM
82	N,N,N',N'-tetramethyl-4,4'-methylenedianili ne (Michler's base)	101-61-1	202-959-2		<1000PPM
83	4-[4,4'-bis(dimethylamino)benzhydridene] cyclohexa-2,5-dien-1-ylidene]dimethylamm onium chloride (C.I. Basic Violet 3)	548-62-9	208-953-6		<1000PPM
84	[4-[[4-anilino-1-naphthyl][4-(dimethylamino) phenyl]methylene]cyclohexa-2,5-dien-1-ylid ene]dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	219-943-6		<1000PPM
85	4 $\alpha$ , $\alpha$ -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8		<1000PPM
86	4,4'-bis(dimethylamino)-4''-(methylamino)tri tyl alcohol	561-41-1	209-218-2		<1000PPM
87	[Phthalato(2-)]dioxotrilead	69011-06-9	273-688-5		<1000PPM
88	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06- 0	284-032-2		<1000PPM
89	1,2-Diethoxyethane	629-14-1	211-076-1		<1000PPM
90	1-bromopropane	106-94-5	203-445-0		<1000PPM
91	3-Ethyl -2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04 -2	421-150-7		<1000PPM
92	4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	-	-		<1000PPM
93	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8		<1000PPM
94	4,4'-oxydianiline and its salts	101-80-4	202-977-0		<1000PPM



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No	Substance Name	CAS NO	EC NO	Application	Remark
95	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	200-453-6		<1000PPM
96	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7	202-453-1		<1000PPM
97	4-Nonylphenol, branched and linear - substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof	-	-		<1000PPM
98	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1		<1000PPM
99	Acetic acid, lead salt, basic	51404-69-4	257-175-3		<1000PPM
100	Biphenyl-4-ylamine	92-67-1	202-177-1		<1000PPM
101	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9		<1000PPM
102	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8		<1000PPM
103	Dibutyltin dichloride (DBT)	683-18-1	211-670-0		<1000PPM
104	Diethyl sulphate	64-67-5	200-589-6		<1000PPM
105	Diisopentylphthalate( DIPP)	605-50-5	210-088-4		<1000PPM
106	Dimethyl sulphate	77-78-1	201-058-1		<1000PPM
107	Dinoseb	88-85-7	201-861-7		<1000PPM
108	Dioxobis(stearato)trilead	12578-12-0	235-702-8		<1000PPM
109	Fatty acids, C16-18, lead salts	91031-62-8	292-966-7		<1000PPM
110	Furan	110-00-9	203-727-3		<1000PPM
111	Henicosafuoroundecanoic acid	2058-94-8	218-165-4		<1000PPM
112	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4		<1000PPM
113	Hexahydro-2-benzofuran-1,3-dione (HHPA), cis-cyclohexane-1,2-Dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7, 13149-00-3, 14166-21-3	201-604-9, 236-086-3, 238-009-9		<1000PPM
114	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	247-094-1, 243-072-0, 256-356-4, 260-566-1		<1000PPM
115	Lead bis(tetrafluoroborate)	13814-96-5	237-486-0		<1000PPM
116	(1:1)Lead cyanamidate	20837-86-9	244-073-9		<1000PPM
117	Lead dinitrate	10099-74-8	233-245-9		<1000PPM
118	Lead oxide (lead monoxide)	1317-36-8	215-267-0		<1000PPM
119	Lead oxide sulfate	12036-76-9	234-853-7		<1000PPM
120	Lead tetroxide (orange lead)	1314-41-6	215-235-6		<1000PPM



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No	Substance Name	CAS NO	EC NO	Application	Remark
121	Lead titanium trioxide	12060-00-3	235-038-9		<1000PPM
122	Lead Titanium Zirconium Oxide	12626-81-2	235-727-4		<1000PPM
123	Methoxy acetic acid	625-45-6	210-894-6		<1000PPM
124	N,N-dimethylformamide; dimethyl formamide	68-12-2	200-679-5		<1000PPM
125	N-methylacetamide	79-16-3	201-182-6		<1000PPM
126	N-pentyl-isopentylphthalate	776297-69-9	-		<1000PPM
127	o-aminoazotoluene	97-56-3	202-591-2		<1000PPM
128	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0		<1000PPM
129	Pentacosfluorotridecanoic acid	72629-94-8	276-745-2		<1000PPM
130	Pentalead tetraoxide sulphate	12065-90-6	235-067-7		<1000PPM
131	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2		<1000PPM
132	41Pyrochlore, antimony lead yellow	8012-00-8	232-382-1		<1000PPM
133	Silicic acid, barium salt, lead-doped	68784-75-8	272-271-5		<1000PPM
134	Silicic acid, lead salt	11120-22-2	234-363-3		<1000PPM
135	(II) Sulfurous acid, lead salt, dibasic	62229-08-7	263-467-1		<1000PPM
136	Tetraethyllead	78-00-2	201-075-4		<1000PPM
137	Tetralead trioxide sulphate	12202-17-4	235-380-9		<1000PPM
138	Tricosfluorododecanoic acid	307-55-1	206-203-2		<1000PPM
139	Trilead bis(carbonate)dihydroxide (basic lead carbonate)	1319-46-6	215-290-6		<1000PPM
140	Trilead dioxide phosphonate	12141-20-7	235-252-2		<1000PPM
141	Cadmium	7440-43-9	231-152-8		<1000PPM
142	Cadmium oxide	1306-19-0	215-146-2		<1000PPM
143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4		<1000PPM
144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9		<1000PPM
145	Dipentyl phthalate (DPP)	131-18-0	205-017-9		<1000PPM
146	4-Nonylphenol, branched and linear, ethoxylated[substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof	-	-		<1000PPM
147	Cadmium Sulphide	1306-23-6	215-147-8		<1000PPM
148	Dihexyl phthalate Dihexyl	84-75-3	201-559-5		<1000PPM
149	Imidazolidine-2-thione(2-imidazoline-2-thiol)	96-45-7	202-506-9		<1000PPM
150	Lead di(acetate)	301-04-2	206-104-4		<1000PPM



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No	Substance Name	CAS NO	EC NO	Application	Remark
151	Trixylyl phosphate	25155-23-1	246-677-8		<1000PPM
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4		Plasticizer, Sealant/jointing agents	<1000PPM
153	Cadmium chloride	10108-64-2			<1000PPM
154	Sodium perborate; perboric acid, sodium salt	-			<1000PPM
155	Sodium peroxometaborate	7632-04-4			<1000PPM
156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1			<1000PPM
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7			<1000PPM
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1			<1000PPM
159	Cadmium fluoride	7790-79-6			<1000PPM
160	Cadmium sulphate	10124-36-4 31119-53-6			<1000PPM
161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	15571-58-1 27107-89-7			<1000PPM
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	271-094-0. 272-013-1			<1000PPM
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof	-			<1000PPM



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No	Substance Name	CAS NO	EC NO	Applicati on	Remark
164	1,3-Propanesultone	1120-71-4	214-317-9		<1000PPM
165	2,4-Di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8		<1000PPM
166	2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1		<1000PPM
167	Nitrobenzene	98-95-3	202-716-0		<1000PPM
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3		<1000PPM
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5		<1000PPM
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	201-245-8		<1000PPM
171	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	-		<1000PPM
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts				<1000PPM
	Decanoic acid, nonadecafluoro-, sodium salt	3830-45-3	-		
	Ammonium nonadecafluorodecanoate	3108-42-7	221-470-5		
	Nonadecafluorodecanoic acide	206-400-3	335-76-2		
173	p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6		<1000PPM
174	PFHxS	206-587-1	355-46-4		<1000PPM
175	Chrysene	218-01-9	1-15-2018		<1000PPM
176	Benz[a]anthracene	56-55-3	1-15-2018		<1000PPM
177	Cadmium nitrate	10325-94-7	1-15-2018		<1000PPM
178	Cadmium hydroxide	21041-95-2	1-15-2018		<1000PPM
179	Cadmium carbonate	513-78-0	1-15-2018		<1000PPM
180	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1.1 <sup>6,9</sup> .0 <sup>2,13</sup> .05 <sup>10</sup> ]octadeca-7,15-diene ("Dechlorane Plus" <sup>TM</sup> ) [covering any of its individual anti- and syn-isomers or any combination thereof]	----	1-15-2018		<1000PPM





## SURGE COMPONENTS INC.

No	Substance Name	CAS NO	EC NO	Applicati on	Remark
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with $\geq 0.1\%$ w/w 4-heptylphenol, branches and linear]	----	1-15-2018		<1000PPM
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride				<1000PPM
183	Benzo[ghi]perylene	191-24-2	205-883-8		<1000PPM
184	Decamethylcyclopentasiloxane	541-02-6	208-764-9		<1000PPM
185	Dicyclohexyl phthalate	84-61-7	201-545-9		<1000PPM
186	Disodium octaborate	12008-41-2	234-541-0		<1000PPM
187	Dodecamethylcyclohexasiloxane	540-97-6	208-762-8		<1000PPM
188	Ethylenediamine	107-15-3	203-468-6		<1000PPM
189	Lead	7439-92-1	231-100-4		<1000PPM
190	Octamethylcyclotetrasiloxane	556-67-2	209-136-7		<1000PPM
191	Terphenyl, hydrogenated	61788-32-7	262-967-7		<1000PPM

END