

REGARDING REACH SUBSTANCES OF VERY HIGH CONCERN

June 27, 2018

In accordance with Article 33 of Regulation No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), KEMET Electronics Corporation and its affiliates and subsidiaries (collectively referred to as “KEMET”) has a duty to communicate to its customers the presence of Substances of Very High Concern (SVHC) contained in its articles in excess of 0.1% weight by weight (w/w) (as defined by the Court of Justice of the European Union Case C-106/14).

KEMET has reviewed the content of its articles to determine the presence, if any, of the one hundred ninety-one (191) SVHC substances identified on the EU SVHC Candidate List as of 27 June 2018.

Except as explicitly identified hereunder, no SVHCs were found to be present in KEMET’s articles in excess of 0.1% w/w. This determination is based on engineering evaluation, testing, and supplier declarations and is correct to the best of KEMET’s knowledge.

Declaration of SVHCs in KEMET’s articles:

1. Capacitors specifically designed with lead solder terminations and identified by KEMET as non-RoHS compliant contain lead (EC# 231-100-4) in excess of 0.1% w/w. This RoHS compliance information may be obtained from the component labels, the shipping documents, and/or the component Spec Sheets and Data Sheets located on the KEMET Component Edge interface at: <https://search.kemet.com/component-edge/#/>.
2. Capacitors that rely on Exemption 6(c), 7(a), and 7(c)II of the Directive 2011/65/EU of the European Parliament and the Council of 8 June 2011 (RoHS Recast) and identified by KEMET as “RoHS-EU” (as defined on KEMET Environmental EZ ID Product Labeling Update, Rev F, June 2018, <http://www.kemet.com/green-Product-Roadmap>) will contain lead (EC# 231-100-4) in excess of 0.1% w/w.
3. Piezoelectric actuators contain lead titanium zirconium oxide (PZT) (EC# 235-727-4) in excess of 0.1% w/w.

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For additional information, please visit: <http://www.kemet.com/Green-Product-Roadmap>.

SVHC Candidate List (27 June 2018)

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
1	Perfluorohexane-1-sulphonic acid and its salts	-	-
2	4,4'-isopropylidenediphenol	201-245-8	80-05-7
3	4-heptylphenol, branched and linear	-	-
4	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts Decanoic acid, nonadecafluoro-, sodium salt Ammonium nonadecafluorodecanoate Nonadecafluorodecanoic acid	- - 221-470-5 206-400-3	- 3830-45-3 3108-42-7 335-76-2
5	Nitrobenzene	202-716-0	98-95-3
6	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV-327]	223-383-8	3864-99-1
7	2-(2H-benzotriazol-2-yl)-4-(ter-butyl)-6-(sec-butyl) phenol(UV-350)	253-037-1	36437-37-3
8	1,3-propanesultone	214-317-9	1120-71-4
9	Perfluorononan-1-oic-acid- and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4
10	Benzo[def]chrysene (Benzo[a]pyrene), Benzo[def]chrysene(Benzo[a]pyrene)	200-028-5	50-32-8
11	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	68515-51-5 68648-93-1
12	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 stereoisomers of [1] and [2] or any combination thereof]	-	-

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
13	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1
14	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)	-	-
15	Cadmium fluoride	232-222-0	7790-79-6
16	Cadmium sulphate	233-331-6	10124-36-4; 31119-53-6
17	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1
18	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7
19	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4
20	Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0	-
21	Sodium peroxometaborate	231-556-4	7632-04-4
22	Cadmium chloride	233-296-7	10108-64-2
23	Cadmium sulphide	215-147-8	1306-23-6
24	Trixylyl phosphate	246-677-8	25155-23-1
25	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	217-710-3	1937-37-7
26	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7
27	Lead di(acetate)	206-104-4	301-04-2
28	Dihexyl phthalate	201-559-5	84-75-3
29	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4	573-58-0
30	Cadmium	231-152-8	7440-43-9
31	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]	-	-
32	Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
33	Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1
34	Dipentyl phthalate (DPP)	205-017-9	131-18-0
35	Cadmium oxide	215-146-2	1306-19-0
36	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	247-094-1, 243-072-0, 256-356-4, 260-566-1	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
37	6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8
38	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]	201-604-9, 236-086-3, 238-009-9	85-42-7, 13149-00-3, 14166-21-3
39	Pyrochlore, antimony lead yellow	232-382-1	8012-00-8
40	Henicosfluoroundecanoic acid	218-165-4	2058-94-8
41	4-Aminoazobenzene	200-453-6	60-09-3
42	Silicic acid, lead salt	234-363-3	11120-22-2
43	Lead titanium zirconium oxide	235-727-4	12626-81-2
44	Lead monoxide (lead oxide)	215-267-0	1317-36-8
45	o-Toluidine	202-429-0	95-53-4
46	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2
47	Dibutyltin dichloride (DBTC)	211-670-0	683-18-1
48	Lead bis(tetrafluoroborate)	237-486-0	13814-96-5
49	Lead dinitrate	233-245-9	10099-74-8
50	Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped		
51	[with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	272-271-5	68784-75-8
52	Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6
53	4,4'-methylenedi-o-toluidine	212-658-8	838-88-0

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
54	Diethyl sulphate	200-589-6	64-67-5
55	Dimethyl sulphate	201-058-1	77-78-1
56	N,N-dimethylformamide	200-679-5	68-12-2
57	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-
58	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]	-	-
59	Furan	203-727-3	110-00-9
60	Lead oxide sulfate	234-853-7	12036-76-9
61	Lead titanium trioxide	235-038-9	12060-00-3
62	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5
63	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7
64	1,2-Diethoxyethane	211-076-1	629-14-1
65	N-methylacetamide	201-182-6	79-16-3
66	Tetralead trioxide sulphate	235-380-9	12202-17-4
67	Acetic acid, lead salt, basic	257-175-3	51404-69-4
68	[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9
69	Tetraethyllead	201-075-4	78-00-2
70	N-pentyl-isopentylphthalate	-	776297-69-9
71	Pentalead tetraoxide sulphate	235-067-7	12065-90-6
72	Heptacosaflluorotetradecanoic acid	206-803-4	376-06-7
73	Tricosaflluorododecanoic acid	206-203-2	307-55-1
74	1-bromopropane (n-propyl bromide)	203-445-0	106-94-5
75	Dioxobis(stearato)trilead	235-702-8	12578-12-0
76	Pentacosaflluorotridecanoic acid	276-745-2	72629-94-8
77	Methoxyacetic acid	210-894-6	625-45-6

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
78	Methyloxirane (Propylene oxide)	200-879-2	75-56-9
79	Trilead dioxide phosphonate	235-252-2	12141-20-7
80	o-aminoazotoluene	202-591-2	97-56-3
81	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7
82	Diisopentylphthalate	210-088-4	605-50-5
83	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0
84	Biphenyl-4-ylamine	202-177-1	92-67-1
85	Fatty acids, C16-18, lead salts	292-966-7	91031-62-8
86	Orange lead (lead tetroxide)	215-235-6	1314-41-6
87	4,4'-oxydianiline and its salts	202-977-0	101-80-4
88	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3
89	Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7
90	Lead cyanamidate	244-073-9	20837-86-9
91	α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	229-851-8	6786-83-0
92	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	208-953-6	548-62-9
93	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1
94	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β -TGIC)	423-400-0	59653-74-6
95	Diboron trioxide	215-125-8	1303-86-2
96	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2
97	Formamide	200-842-0	75-12-7
98	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	209-218-2	561-41-1
99	Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
100	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4
101	[4-[[4-anilino-1-naphthyl]][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	219-943-6	2580-56-5
102	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9
103	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8
104	Phenolphthalein	201-004-7	77-09-8
105	N,N-dimethylacetamide	204-826-4	127-19-5
106	4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9
107	Lead diazide, Lead azide	236-542-1	13424-46-9
108	Lead dipicrate	229-335-2	6477-64-1
109	1,2-dichloroethane	203-458-1	107-06-2
110	Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-
111	Calcium arsenate	231-904-5	7778-44-1
112	Dichromium tris(chromate)	246-356-2	24613-89-6
113	2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0
114	Pentazinc chromate octahydroxide	256-418-0	49663-84-5
115	Arsenic acid	231-901-9	7778-39-4
116	Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9
117	Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4
118	Lead styphnate	239-290-0	15245-44-0
119	Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
120	Trilead diarsenate	222-979-5	3687-31-8
121	Bis(2-methoxyethyl) ether	203-924-4	111-96-6
122	2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4
123	Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-
124	Cobalt dichloride	231-589-4	7646-79-9
125	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6
126	Strontium chromate	232-142-6	7789-06-2
127	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4
128	1-Methyl-2-pyrrolidone	212-828-1	872-50-4
129	1,2,3-Trichloropropane	202-486-1	96-18-4
130	2-Ethoxyethyl acetate	203-839-2	111-15-9
131	Hydrazine	206-114-9	302-01-2, 7803-57-8
132	Cobalt(II) diacetate	200-755-8	71-48-7
133	2-Ethoxyethanol	203-804-1	110-80-5
134	Cobalt(II) sulphate	233-334-2	10124-43-3
135	Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.	231-801-5, 236-881-5	7738-94-5, 13530-68-2
136	2-Methoxyethanol	203-713-7	109-86-4
137	Chromium trioxide	215-607-8	1333-82-0
138	Cobalt(II) carbonate	208-169-4	513-79-1
139	Cobalt(II) dinitrate	233-402-1	10141-05-6

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
140	Trichloroethylene	201-167-4	79-01-6
141	Potassium dichromate	231-906-6	7778-50-9
142	Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1
143	Boric acid	233-139-2, 234-343-4	10043-35-3, 11113-50-1
144	Ammonium dichromate	232-143-1	7789-09-5
145	Sodium chromate	231-889-5	7775-11-3
146	Disodium tetraborate, anhydrous	215-540-4	1303-96-4, 1330-43-4, 12179-04-3
147	Potassium chromate	232-140-5	7789-00-6
148	Acrylamide	201-173-7	79-06-1
149	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2
150	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8
151	2,4-Dinitrotoluene	204-450-0	121-14-2
152	Anthracene oil	292-602-7	90640-80-5
153	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2
154	Anthracene oil, anthracene-low	292-604-8	90640-82-7
155	Diisobutyl phthalate	201-553-2	84-69-5
156	Tris(2-chloroethyl)phosphate	204-118-5	115-96-8
157	Lead chromate	231-846-0	7758-97-6
158	Anthracene oil, anthracene paste	292-603-2	90640-81-6
159	Pitch, coal tar, high temp.	266-028-2	65996-93-2
160	Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4
161	Lead hydrogen arsenate	232-064-2	7784-40-9
162	Benzyl butyl phthalate (BBP)	201-622-7	85-68-7
163	Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7
164	Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
165	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2
166	Diarsenic trioxide	215-481-4	1327-53-3
167	Triethyl arsenate	427-700-2	15606-95-8
168	Diarsenic pentaoxide	215-116-9	1303-28-2
169	Sodium dichromate	234-190-3	7789-12-0, 10588-01-9
170	Dibutyl phthalate (DBP)	201-557-4	84-74-2
171	4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9
172	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8
173	Anthracene	204-371-1	120-12-7
174	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	247-148-4 and 221-695-9	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)
175	Benz[a]anthracene	200-280-6	56-55-3, 1718-53-2
176	Cadmium carbonate	208-168-9	513-78-0
177	Cadmium hydroxide	244-168-5	21041-95-2
178	Cadmium nitrate	233-710-6	10022-68-1, 10325-94-7
179	Chrysene	205-923-4	218-01-9, 1719-03-5
180	Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™)	-	-
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	-	-
182	Benzo[ghi]perylene	205-883-8	191-24-2

No.	SUBSTANCE NAME	EC NUMBER	CAS NUMBER
183	Decamethylcyclopentasiloxane (D5)	208-764-9	541-02-6
184	Disodium octaborate	234-541-0	12008-41-2
185	Dodecamethylcyclohexasiloxane (D6)	208-762-8	540-97-6
186	Ethylenediamine	203-468-6	107-15-3
187	Lead	231-100-4	7439-92-1
188	Octamethylcyclotetrasiloxane (D4)	209-136-7	556-67-2
189	Terphenyl hydrogenated	262-967-7	61788-32-7
190	Dicyclohexyl phthalate (DCHP)	201-545-9	84-61-7
191	benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	209-008-0	552-30-7