



16/07/2019

### SiTime Environmental Compliance Declaration

1. SiTime is committed to providing environmentally compliant products. SiTime actively works with its suppliers to restrict the use of hazardous substances in the manufacturing process and in all of its products and to meet or exceed the relevant environmental specifications provided in:
  - a. European Union RoHS Directive EU 2011/65 + EU 2015/863 regarding the restriction of certain hazardous substances.
  - b. European Union WEEE Directive 2012/19/EU regarding waste electrical and electronic equipment.
  - c. Registration, evaluation, authorization and restriction of chemical (REACH) regulation on Substances of Very High Concern (SVHC) compliance. Substance content less than 0.1 % (wt %) for the European Chemical Agency (ECHA) candidate list REACH 201 last updated on ECHA website on July 16 2019 (Table attached)
  - d. EU Directive 2006/122/ECOF restriction on Perfluorooctane Sulfonates (PFOS) and Perfluorooctanoic acid (PFOA) content at <0.1% (wt%)
  - e. IEC 61249-2-21 directive on the restriction of the use of Br<900ppm, Cl<900ppm, Br+Cl<1500ppm in electronic components.
  - f. California Proposition 65 list (current version).
2. SiTime works closely with suppliers to maintain the material content declaration for its products and SGS/ICP reports for the homogeneous materials used in the products. The updates to these documents are done when,
  - a. There is any change in the material contents of the product
  - b. The regulation changes dictate that new analysis be done for compliance
3. SiTime will make available to its customers, upon request, the material content declaration document and the SGS/ICP report documentation for the homogeneous materials used in the product.

Jim Pedicord



Director of Worldwide Quality and Reliability

**SiTime REACH201 SHVC Substance List**

<b>No</b>	<b>Substances</b>	<b>CAS No.</b>
1	Anthracene	120-12-7
2	4,4'-Diaminodiphenylmethane	101-77-9
3	Dibutyl phthalate (DBP)	84-74-2
4	Cobalt dichloride	7646-79-9
5	Diarsenic pentaoxide	1303-28-2
6	Diarsenic trioxide	1327-53-3
7	Sodium dichromate, dihydrate	7789-12-0, 10588-01-9
8	5-tert-butyl-2,4,6-trinitrom-xylene (musk xylene)	81-15-2
9	Bis(2-ethyl(hexyl)phthalate) (DEHP)	117-81-7
10	Hexabromocyclododecane (HBCDD) all major diastereoisomers identified ( $\alpha$ -HBCDD, $\beta$ -HBCDD, $\gamma$ -HBCDD)	25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8
12	Bis(tributyltin)oxide	56-35-9
13	Lead hydrogen arsenate	7784-40-9
14	Benzyl butyl phthalate	85-68-7
15	Triethyl arsenate	15606-95-8
16	2,4-Dinitrotoluene	121-14-2
17	Anthracene oil	90640-80-5
18	Anthracene oil, anthracene paste, distn. Lights	91995-17-4
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
20	Anthracene oil, anthracene-low	90640-82-7
21	Anthracene oil, anthracene paste	90640-81-6
22	Diisobutyl phthalate	84-69-5
23	Lead chromate	7758-97-6
24	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
26	Tris(2-chloroethyl) phosphate	115-96-8
27	Pitch, coal tar, high temperature	65996-93-2



28	Acrylamide	79-06-1
29	Trichloroethylene	79-01-6
30	Boric acid	10043-35-3, 11113-50-1
31	Disodium tetraborate, anhydrous	1330-43-4, 12179-04-3, 1303-96-4
32	Tetraboron disodium heptaoxide, hydrate	12267-73-1
33	Sodium chromate	11/3/7775
34	Potassium chromate	7789-00-6
35	Ammonium dichromate	9/5/7789
36	Potassium dichromate	7778-50-9
37	Trioxochromium	1333-82-0
38	2-Ethoxyethanol	110-80-5
39	2-Methoxyethanol	109-86-4
40	Cobalt (di)acetate	71-48-7
41	Cobalt (II) carbonate	513-79-1
42	Cobalt dinitrate	10141-05-6
43	Cobalt (II) sulphate	10124-43-3
44	Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid Oligomers of chromic acid and dichromic acid	7738-94-5, 13530-68-2, -
45	2-ethoxyethyl acetate	111-15-9
46	strontium chromate	6/2/7789
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4
48	Hydrazine	7803-57-8, 302-01-2
49	1-methyl-2-pyrrolidone	872-50-4
50	1,2,3-trichloropropane	96-18-4
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6
52	Dichromium tris (chromate)	24613-89-6
53	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9
54	Pentazinc chromate octahydroxide	49663-84-5
55	Aluminosilicate, Refractory Ceramic Fibres (RCF)	-
56	Zirconia Aluminosilicate refractory Ceramic Fibres (Zr-RCF)	-
57	Formaldehyde, oligomeric reaction products with aniline	25214-70-4
58	Bis(2-methoxyethyl) phthalate	117-82-8



59	2-Methoxyaniline; o-Anisidine	90-04-0
60	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9
61	1,2-dichloroethane	107-06-2
62	Bis(2-methoxyethyl) ether	111-96-6
63	Arsenic acid	7778-39-4
64	Calcium arsenate	7778-44-1
65	Trilead diarsenate	3687-31-8
66	N,N-dimethylacetamide (DMAC)	127-19-5
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4
68	Phenolphthalein	77-09-8
69	Lead diazide, Lead azide	13424-46-9
70	Lead styphnate	15245-44-0
71	Lead dipicrate	6477-64-1
72	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
73	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
74	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione ( $\beta$ -TGIC)	59653-74-6
75	Diboron trioxide	1303-86-2
76	1,2-bis(2-methoxyethoxy)ethane (TEGDME triglyme)	112-49-2
77	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1
78	Lead(II) bis(methanesulfonate)	17570-76-2
79	Formamide	75-12-7
80	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9
81	1,2-dimethoxyethane ethylene glycol dimethyl ether (EGDME)	110-71-4
82	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5
83	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9
84	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5
86	Pentacosafuorotridecanoic acid	72629-94-8
87	Tricosafuorododecanoic acid	307-55-1
88	Henicosafuoroundecanoic acid	2058-94-8



89	Heptacosafuorotetradecanoic acid	376-06-7
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - [covering well-defined substances and UVCB substances, polymers and homologues]	-
91	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]	-
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7
94	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
95	Methoxy acetic acid	625-45-6
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
97	Diisopentylphthalate (DIPP)	605-50-5
98	N-pentyl-isopentylphthalate	776297-69-9
99	1,2-Diethoxyethane	629-14-1
100	N,N-dimethylformamide; dimethyl formamide	68-12-2
101	Dibutyltin dichloride (DBT)	683-18-1
102	Acetic acid, lead salt, basic	51404-69-4
103	Basic lead carbonate (trileadbis(carbonate)dihydroxide)	1319-46-6
104	Lead oxide sulfate (basic lead sulfate)	12036-76-9
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)	69011-06-9
106	Dioxobis(stearato)trilead	12578-12-0
107	Fatty acids, C16-18, lead salts	91031-62-8
108	Lead bis(tetrafluoroborate)	13814-96-5
109	Lead cyanamidate	20837-86-9
110	Lead dinitrate	10099-74-8
111	Lead oxide (lead monoxide)	1317-36-8
112	Lead tetroxide (orange lead)	1314-41-6
113	Lead titanium trioxide	12060-00-3
114	Lead Titanium Zirconium Oxide	12626-81-2
115	Pentaleadtetraoxidesulphate	12065-90-6



116	Pyrochlore, antimony lead yellow	8012-00-8
117	Silicic acid, barium salt, lead-doped	68784-75-8
118	Silicic acid, lead salt	11120-22-2
119	Sulfurous acid, lead salt, dibasic	62229-08-7
120	Tetraethyllead	78-00-2
121	Tetralead trioxide sulphate	12202-17-4
122	Trilead dioxide phosphonate	12141-20-7
123	Furan	110-00-9
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9
125	Diethyl sulphate	64-67-5
126	Dimethyl sulphate	77-78-1
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2
128	Dinoseb	88-85-7
129	4,4'-methylenedi-o-toluidine	838-88-0
130	4,4'-oxydianiline and its salts	101-80-4
131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3
132	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8
134	Biphenyl-4-ylamine	92-67-1
135	o-aminoazotoluene	97-56-3
136	o-Toluidine; 2-Aminotoluene	95-53-4
137	N-methylacetamide	79-16-3
138	1-bromopropane; n-propyl bromide	106-94-5
139	Pentadecafluorooctanoic acid (PFOA)	335-67-1
140	Cadmium oxide	1306-19-0
141	Ammoniumpentadecafluorootanoate (APFO)	3825-26-1
142	Cadmium	7440-43-9
143	4-Nonylphenol, branched and linear, ethoxylated	-
144	Dipentyl phthalate (DPP)	131-18-0
145	Cadmium sulphide	1306-23-6
146	Di-n-hexyl phthalate	84-75-3
147	Disodium 3, 3'-[[1 1'-biphenyl]-4 4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0



148	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)	1937-37-7
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7
150	Lead di(acetate)	301-04-2
151	Trixylyl phosphate	25155-23-1
152	1 2-Benzenedicarboxylic acid dihexyl ester branched and linear	68515-50-4
153	Cadmium chloride	10108-64-2
154	Sodium peroxometaborate	7632-04-4
155	Sodium perborate perboric acid sodium salt	11138-47-9
156	Cadmium fluoride	7790-79-6
157	Calcium sulfate	10124-36-4; 31119-53-6
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1
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)	-
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)	68515-51-5, 68648-93-1
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 stereoisomers of [1] and [2] or any combination thereof]	-
164	1,3-propanesultone	214-317-9
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1
167	Nitrobenzene	202-716-0
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8
170	p-(1,1-dimethylpropyl)phenol (PTAP)	80-46-6
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2



172	4-Heptylphenol, branched and linear	-
173	4,4'-isopropylidenediphenol	80-05-7
174	Perfluorohexane-1-sulphonic acid and its salts	-
175	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	-
176	Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™)	-
177	Chrysene	218-01-9; 1719-03-5
178	Cadmium nitrate	10022-68-1; 10325-94-7
179	Cadmium hydroxide	21041-95-2
180	Cadmium carbonate	513-78-0
181	Benz[a]anthracene	56-55-3; 1718-53-2
182	Terphenyl, hydrogenated	61788-32-7
183	Octamethylcyclotetrasiloxane	556-67-2
184	Lead	7439-92-1
185	Ethylenediamine	107-15-3
186	Dodecamethylcyclohexasiloxane	540-97-6
187	Disodium octaborate	12008-41-2
188	Dicyclohexyl phthalate	84-61-7
189	Decamethylcyclopentasiloxane	541-02-6
190	Benzo[ghi]perylene	191-24-2
191	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride	552-30-7
192	Pyrene	129-00-0; 1718-52-1
193	Phenanthrene	85-01-8
194	Fluoranthene	206-44-0; 93951-69-0
194	Benzo[k]fluoranthene	207-08-9
196	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one 3-benzylidene camphor; 3-BC	15087-24-8
198	2-methoxyethyl acetate	110-49-6
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-
200	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-





<b>201</b>	<b>4-tert-butylphenol</b>	<b>98-54-4</b>
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