



Date: Mar 2024

**Certificate for Non-Inclusion of REACH-regulated Substances
of Very High Concern**

This letter certifies that all ABLIC Inc. Semiconductor Products do not contain more than 0.1wt% of any substances on the candidate list of REACH Substances of Very High Concern (SVHC).

Applicable product:

All ABLIC Inc. Semiconductor Products excluding S-8540/S-8541 series (8-Pin MSOP) and S-8244 series (8-Pin MSOP).

Attached sheet:

REACH 240 SVHC Candidate List

ABLIC Inc.
Quality Assurance Solution Center
Manager of the Center
Ichiro Tamaki

A handwritten signature in black ink, appearing to read 'I. Tamaki', positioned above a horizontal line.

REACH 240 SVHC Candidate List

No.	Chemical name	CAS No.
1	4,4'-diaminodiphenylmethane; 4,4'-methylenedianiline	101-77-9
2	Sodium dichromate, dihydrate Sodium dichromate anhydrate	7789-12-0 (10588-01-9)
3	Bis(2-ethylhexyl) phthalate(DEHP)	117-81-7
4	Anthracene, pure	120-12-7
5	Diarsenic pentoxide	1303-28-2
6	Diarsenic trioxide	1327-53-3
7	Cyclododecane, hexabromo- (HBCDD) (1R,2R,5S,6R,9R,10S)-rel-1,2,5,6,9,10-Hexabromocyclododecane (1R,2S,5R,6R,9R,10S)-rel-1,2,5,6,9,10-Hexabromocyclododecane (1R,2R,5R,6S,9S,10R)-rel-1,2,5,6,9,10-Hexabromocyclododecane 1,2,5,6,9,10-Hexabromocyclododecane	25637-99-4 (134237-50-6) (134237-51-7) (134237-52-8) (3194-55-6)
8	Triethyl arsenate	15606-95-8
9	Bis (tributyltin) oxide (TBTO)	56-35-9
10	Cobalt dichloride	7646-79-9
11	Lead hydrogen arsenate	7784-40-9
12	5-tert-butyl-2,4,6-trinitro-m-xylene	81-15-2
13	Dibutyl phthalate (DBP)	84-74-2
14	Alkanes, C10-13, chloro	85535-84-8
15	Benzyl butyl phthalate	85-68-7
16	Tris(2-chloroethyl)phosphate	115-96-8
17	2,4-dinitrotoluene; dinitrotoluene, technical grade;	121-14-2
18	Lead chromate molybdate sulfate red; C.I. Pigment Red 104; [This substance is identified in the Colour Index by Colour Index Constitution Number, C.I. 77605.]	12656-85-8
19	Lead sulfochromate yellow; C.I. Pigment Yellow 34; [This substance is identified in the Colour Index by Colour Index Constitution Number, C.I. 77603.]	1344-37-2
20	Pitch, coal tar, high-temp.; Pitch	65996-93-2
21	Lead chromate	7758-97-6
22	Acrylamide; prop-2-enamide	79-06-1
23	Diisobutyl Phthalate	84-69-5
24	Anthracene oil	90640-80-5
25	Anthracene oil, anthracene paste; Anthracene Oil Fraction	90640-81-6
26	Anthracene oil, anthracene-low; Anthracene Oil Fraction	90640-82-7
27	Anthracene oil, anthracene paste, anthracene fraction; Anthracene Oil Fraction	91995-15-2
28	Anthracene oil, anthracene paste, distn. lights; Anthracene Oil Fraction	91995-17-4
29	Aluminosilicate Refractory Ceramic Fibres	-
30	Zirconia Aluminosilicate, Refractory Ceramic Fibres	-
31	Trichloroethylene	79-01-6
32	Boric acid	10043-35-3 11113-50-1
33	Disodium tetraborate, anhydrous	12179-04-3 1330-43-4 1303-96-4
34	Tetraboron disodium heptaoxide, hydrate	12267-73-1
35	Sodium chromate	7775-11-3
36	Potassium chromate	7789-00-6
37	Ammonium dichromate	7789-09-5
38	Potassium dichromate	7778-50-9

No.	Chemical name	CAS No.
39	Cobalt (II) sulphate	10124-43-3
40	Cobalt (II) dinitrate	10141-05-6
41	Cobalt (II) carbonate	513-79-1
42	Cobalt (II) diacetate	71-48-7
43	2-Ethoxyethanol	110-80-5
44	2-Methoxyethanol	109-86-4
45	Chromium trioxide	1333-82-0
46	Acids generated from chromium	7738-94-5
	Trioxide and their oligomers	13530-68-2
	Oligomers of chromic acid and dichromic	-
47	2-ethoxyethyl acetate	111-15-9
48	Strontium Chromate	7789-06-2
49	1,2-benzenedicarboxylic Acid, di-C7-11-branched and Linear Alkyl Esters	68515-42-4
50	Hydrazine	7803-57-8 302-01-2
51	1-methyl-2-pyrrolidone(NMP)	872-50-4
52	1,2,3-trichloropropane	96-18-4
53	1,2-benzenedicarboxylic Acid, di-C6-8-branched Alkyl Esters, C7-rich	71888-89-6
54	Dichromium tris(chromate)	24613-89-6
55	Potassium hydroxyoctaoxodizincatedi-chromate	11103-86-9
56	Pentazinc chromate octahydroxide	49663-84-5
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	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, (4-tert-Octylphenol)	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	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4
74	Diboron trioxide	1303-86-2
75	Formamide	75-12-7
76	Lead(II) bis(methanesulfonate)	17570-76-2
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9
78	β -TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
81	3[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9
82	26[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	α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1

No.	Chemical name	CAS No.
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	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
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	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	Trilead bis(carbonate)dihydroxide (basic lead carbonate)	1319-46-6
104	Lead oxide sulfate	12036-76-9
105	[Phthalato(2-)]dioxotrilead	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	Pentalead tetraoxide sulphate	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	106-94-5
139	Cadmium	7440-43-9
140	Cadmium oxide	1306-19-0

No.	Chemical name	CAS No.
141	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
142	Pentadecafluorooctanoic acid (PFOA)	335-67-1
143	Dipentyl phthalate (DPP)	131-18-0
144	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]	-
145	Cadmium sulphide	1306-23-6
146	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0
147	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
148	Diethyl phthalate	84-75-3
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7
150	Lead di(acetate)	301-04-2
151	Triethyl phosphate	25155-23-1
152	1,2-Benzenedicarboxylic acid, diethyl ester, branched and linear	68515-50-4
153	Cadmium chloride	10108-64-2
154	Sodium perborate; Perboric acid, sodium salt	-
155	Sodium peroxometaborate	7632-04-4
156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
158	2-ethylhexyl 10-ethyl-4,4-diethyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1
159	Cadmium fluoride	7790-79-6
160	Cadmium sulphate	10124-36-4 31119-53-6
161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-diethyl-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 diethyl 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 isomers of [1] and [2] or any combination thereof]	-
164	1,3-propanesultone	1120-71-4
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3
167	Nitrobenzene	98-95-3
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1, 21049-39-8, 4149-60-4
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7
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]	-

No.	Chemical name	CAS No.
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3
173	p-(1,1-dimethylpropyl)phenol	80-46-6
174	Perfluorohexane-1-sulphonic acid and its salts	–
175	Chrysene	218-01-9
176	Benz(a)anthracene	56-55-3
177	Cadmium nitrate	10325-94-7
178	Cadmium hydroxide	21041-95-2
179	Cadmium carbonate	513-78-0
180	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1.6,9.02,13.05,10]octadeca-7,15-diene (“Dechlorane Plus”™) [covering any of its individual anti- and syn-isomers or any combination thereof]	–
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear	–
182	Octamethylcyclotetrasiloxane (D4)	556-67-2
183	Decamethylcyclopentasiloxane (D5)	541-02-6
184	Dodecamethylcyclohexasiloxane (D6)	540-97-6
185	Lead	7439-92-1
186	Disodium octaborate	12008-41-2
187	Benzo[ghi]perylene	191-24-2
188	Terphenyl hydrogenated	61788-32-7
189	Ethylenediamine (EDA)	107-15-3
190	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7
191	Dicyclohexyl phthalate (DCHP)	84-61-7
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6
193	Benzo[k]fluoranthene	207-08-9
194	Fluoranthene	206-44-0
195	Phenanthrene	85-01-8
196	Pyrene	129-00-0
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	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)	–
201	4-tert-butylphenol	98-54-4
202	Diisohexyl phthalate	71850-09-4
203	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5
205	Perfluorobutane sulfonic acid (PFBS) and its salts	–
206	1-vinylimidazole	1072-63-5
207	2-methylimidazole	693-98-1
208	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4
209	Butyl 4-hydroxybenzoate(Butylparaben)	94-26-8
210	Bis(2-(2-methoxyethoxy)ethyl)ether	143-24-8

No.	Chemical name	CAS No.
211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	–
212	1,4-dioxane	123-91-1
213	2,2-bis(bromomethyl)propane 1,3-diol (BMP) 2,2-dimethylpropan-1-ol, tribromo derivative 3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) 2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0 36483-57-5 1522-92-5 96-13-9
214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	–
215	4,4'-(1-methylpropylidene)bisphenol; (bisphenol B)	77-40-7
216	Glutaral	111-30-8
217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	–
218	Orthoboric acid, sodium salt	–
219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	–
220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	1782069-81-1 95342-41-9 852541-25-4 253-242-6 36861-47-9 741687-98-9 852541-30-1 852541-21-0
221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	119-47-1
222	S-(tricyclo(5.2.1.0'2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8
223	tris(2-methoxyethoxy)vinylsilane	1067-53-4
224	N-(Hydroxymethyl)acrylamide	924-42-5
225	1,1'-[ethane-1,2-diylbisoxyl]bis[2,4,6-tribromobenzene]	37853-59-1
226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7
227	4,4'-sulphonyldiphenol	80-09-1
228	Barium diboron tetraoxide	13701-59-2
229	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	26040-51-7
230	Isobutyl 4-hydroxybenzoate	4247-02-3
231	Melamine	108-78-1
232	Perfluoroheptanoic acid and its salts	6130-43-4 21049-36-5 375-85-9 20109-59-5
233	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	–
234	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8
235	Bis(4-chlorophenyl) sulphone	80-07-9
236	2,4,6-tri-tert-butylphenol	736-26-3
237	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol(UV-329)	3147-75-9
238	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4
239	Bumetrizole(UV-326)	3896-11-5
240	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol	–