

## Maxim Integrated REACH Statement

### European Union (EU) Regulation (EC) No 1907/2006, REACH

The Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) is an EU initiative aimed to improve the protection of human health and the environment through safe usage of chemical substances contained within preparations and articles. With respect to the REACH initiative we offer the following information regarding Maxim's integrated circuit products:

1. Maxim is a user, not producer, of preparations and materials that contain EU REACH chemical substances that may be used in our locations worldwide. Maxim is an importer of articles into the European Union for sale and distribution. With regard to Article 7(1) of the REACH regulation (registration requirements), articles produced by Maxim do not contain substances intended to be released under normal or reasonably foreseeable conditions of use. Therefore, Maxim is not required to register any substances with the European Chemicals Agency (ECHA) under Article 7(1).
2. In regard to notification to ECHA if there is at least 1 ton per year content of the substances, as stated in Article 7(2) of the REACH regulation, Maxim products do not contain any substances of high concern (SVHC) that exceed this tonnage content. Therefore, Maxim is not required to notify the ECHA under Article 7(2).
3. With regard to substances referenced in the Candidate List, Article 57/58 (Annex XIV substances) and Article 67 (General provisions – Annex XVII), Maxim continues to evaluate supplier and material composition declarations and through internal material review, Maxim to the best of its knowledge has determined the following:
  - Except as noted in Appendix 1, Maxim integrated circuit products do not contain any of the **191 SVHC's** (Substances of Very High Concern) in excess of the 0.1% (weight by weight per article).
  - There are no known REACH substances (SVHC, Annex XIV, Annex XVII) contained in packing materials used to ship Maxim's integrated circuit products.
  - Maxim's integrated circuit products do not contain substances subject to authorization identified in Annex XIV.
  - Maxim's integrated circuit products do not contain substances above the stated thresholds for the identified restricted applications and conditions noted in Annex XVII.

For more information, please contact the Environmental Management and Materials Information team at [emmi@maximintegrated.com](mailto:emmi@maximintegrated.com).

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## Appendix 1 – REACH Statement (EC) No 1907/2008, (191 SVHC)

Article 33 of the REACH regulation requires companies to communicate the presence of any REACH Candidate List Substances within supplied articles above the 0.1% by weight threshold. Maxim has identified materials used within some of its products that may contain SVHC substances. These substances are disclosed as:

- Ethylene glycol dimethyl ether (EGDME) or 1,2-dimethoxyethane (CAS# 110-71-4)  
Some Maxim module products containing a Lithium battery may contain the SVHC, 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) as an electrolyte. Maxim may declare this substance in excess of 0.1% by weight for impacted articles, however, this substance does not present an exposure risk and is not intended to be released under normal or reasonably foreseeable conditions of use.
- Hexahydromethylphthalic anhydride (CAS# 25550-51-0)  
Some suppliers of epoxy underfill and encapsulants have reported hexahydromethylphthalic anhydride in material composition declarations of the raw material that may be used in some Maxim module products. Maxim may declare this substance in excess of 0.1% by weight for impacted module products.
- 1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene (“Dechlorane Plus”) (CAS# 13560-89-9)  
Some suppliers of a specific transformer used in some module products have reported use of Dechlorane plus above the 0.1% by weight threshold. Maxim may declare this substance in excess of 0.1% by weight for impacted module products.
- Lead (CAS# 7439-92-1)  
For Maxim products identified as RoHS exempt or RoHS non-compliant, Lead is contained above the 0.1% by weight threshold.

Note: According to Article 33 of the REACH regulation concerning SVHC in articles, glass and ceramics, which have been classified as a UVCB substance (a substance of unknown or variable composition, complex reaction products or biological material), REACH obligations to communicate information for articles is not applicable. Diboron trioxide (CAS# 1303-86-8) and Lead monoxide (CAS# 1317-36-8) may exist in this form in some module products containing capacitors, resistors or glass frit based on suppliers’ material composition declarations. Maxim may declare this substance in excess of 0.1% by weight, however, these substances do not exist in their original molecular form and cannot be released under normal or reasonably foreseeable conditions of use.

## Appendix 2 - REACH CANDIATE LIST

Item #	Substance Name	CAS #
<b>28-Oct-2008 Date of SVHC Inclusion</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	7789-12-0; 10588-01-9
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2
9	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7
10	Hexabromocyclododecane (HBCDD)	3194-55-6
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8

12	Bis(tributyltin) oxide (BTBO)	56-35-9
13	Lead hydrogen arsenate	7784-40-9
14	Triethyl arsenate	15606-95-8
15	Benzyl butyl phthalate (BBP)	85-68-7
<b>13-Jan-2010 Date of SVHC Inclusion</b>		
16	2,4-Dinitrotoluene	121-14-2
17	Anthracene oil	90640-80-5
18	Anthracene oil, anthracene paste	90640-81-6
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
20	Anthracene oil, anthracene paste, distn. lights	91995-17-4
21	Anthracene oil, anthracene-low	90640-82-7
22	Diisobutyl phthalate	84-69-5
23	Lead chromate	7758-97-6
24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
26	Pitch, coal tar, high temp.	65996-93-2
27	Tris(2-chloroethyl)phosphate	115-96-8
<b>30-Mar-2010 Date of SVHC Inclusion</b>		
28	Acrylamide	79-06-1
<b>18-Jun-2010 Date of SVHC Inclusion</b>		
29	Trichloroethylene	79-01-6
30	Boric acid	10043-35-3
31	Disodium tetraborate, anhydrous	1330-43-4
32	Tetraboron disodium heptaoxide, hydrate	12267-73-1
33	Sodium chromate	7775-11-3
34	Potassium chromate	7789-00-6
35	Ammonium dichromate	7789-09-5
36	Potassium dichromate	7778-50-9
<b>15-Dec-2010 Date of SVHC Inclusion</b>		
37	2-Ethoxyethanol	110-80-5
38	2-Methoxyethanol	109-86-4
39	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.	7738-94-5; 13530-68-2
40	Chromium trioxide	1333-82-0
41	Cobalt(II) carbonate	513-79-1
42	Cobalt(II) diacetate	71-48-7
<b>15-Dec-2010 Date of SVHC Inclusion (continued)</b>		
43	Cobalt(II) dinitrate	10141-05-6
44	Cobalt(II) sulphate	10124-43-3
<b>20-Jun-2011 Date of SVHC Inclusion</b>		
45	1,2,3-Trichloropropane	96-18-4
46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4
48	1-Methyl-2-pyrrolidone	872-50-4
49	2-Ethoxyethyl acetate	111-15-9
50	Hydrazine	302-01-2, 7803-57-8
51	Strontium chromate	7789-06-2
<b>19-Dec-2011 Date of SVHC Inclusion</b>		

52	Dichromium tris(chromate)	24613-89-6
53	Potassium hydroxyoctaoxidizincatedi-chromate	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 (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 azide, Lead diazide	13424-46-9
70	Lead styphnate	15245-44-0
71	Lead dipicrate	6477-64-1
<b>18-Jun-2012 Date of SVHC Inclusion</b>		
72	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	548-62-9
73	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	6786-83-0
74	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
75	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6
76	Diboron trioxide	1303-86-2
77	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
78	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	561-41-1
79	Lead(II) bis(methanesulfonate)	17570-76-2
80	Formamide	75-12-7
<b>18-Jun-2012 Date of SVHC Inclusion (continued)</b>		
81	[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)]	2580-56-5
82	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4
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
<b>19-Dec-2012 Date of SVHC Inclusion</b>		
85	Bis(pentabromophenyl) ether (decabromodiphenyl 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	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
91	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].	85-42-7, 13149-00-3, 14166-21-3
92	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]	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
93	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]	-
94	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated, [covering well-defined substances and UVCB substances, polymers and homologues]	-
95	Methoxyacetic acid	625-45-6
96	N,N-dimethylformamide	68-12-2
97	Dibutyltin dichloride (DBTC)	683-18-1
98	Lead monoxide (Lead oxide)	1317-36-8
99	Orange lead (Lead tetroxide)	1314-41-6
100	Lead bis(tetrafluoroborate)	13814-96-5
101	Trilead bis(carbonate)dihydroxide	1319-46-6
102	Lead titanium trioxide	12060-00-3
103	Lead titanium zirconium oxide	12626-81-2
104	Silicic acid, lead salt	11120-22-2
105	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped, [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]	68784-75-8
106	1-bromopropane (n-propyl bromide)	106-94-5
107	Methyloxirane (Propylene oxide)	75-56-9
108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
109	Diisopentylphthalate (DIPP)	605-50-5
110	N-pentyl-isopentylphthalate	776297-69-9
111	1,2-diethoxyethane	629-14-1
112	Acetic acid, lead salt, basic	51404-69-4
<b>19-Dec-2012 Date of SVHC Inclusion (continued)</b>		
113	Lead oxide sulfate	12036-76-9
114	[Phthalato(2-)]dioxotrilead	69011-06-9
115	Dioxobis(stearato)trilead	12578-12-0
116	Fatty acids, C16-18, lead salts	91031-62-8
117	Lead cyanamidate	20837-86-9
118	Lead dinitrate	10099-74-8
119	Pentalead tetraoxide sulphate	12065-90-6
120	Pyrochlore, antimony lead yellow	8012-00-8
121	Sulfurous acid, lead salt, dibasic	62229-08-7

122	Tetraethyllead	78-00-2
123	Tetralead trioxide sulphate	12202-17-4
124	Trilead dioxide phosphonate	12141-20-7
125	Furan	110-00-9
126	Diethyl sulphate	64-67-5
127	Dimethyl sulphate	77-78-1
128	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7
130	4,4'-methylenedi-o-toluidine	838-88-0
131	4,4'-oxydianiline and its salts	101-80-4
132	4-aminoazobenzene	60-09-3
133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7
134	6-methoxy-m-toluidine (p-cresidine)	120-71-8
135	Biphenyl-4-ylamine	92-67-1
136	o-aminoazotoluene [(4-o-tolylazo-o-toluidine)]	97-56-3
137	o-toluidine	95-53-4
138	N-methylacetamide	79-16-3
<b>20-Jun-2013 Date of SVHC Inclusion</b>		
139	Cadmium	7440-43-9
140	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1
142	Dipentyl phthalate (DPP)	131-18-0
143	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]	-
144	Cadmium oxide	1306-19-0
<b>16-Dec-2013 Date of SVHC Inclusion</b>		
145	Lead di(acetate)	301-04-2
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	Trixylyl phosphate	25155-23-1
148	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7
149	Dihexyl phthalate	84-75-3
150	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
151	Cadmium sulphide	1306-23-6
<b>16-Jun-2014 Date of SVHC Inclusion</b>		
152	Cadmium chloride	10108-64-2
153	1,2-Benzenedicarboxylic acid, dihexylester, branched and linear	68515-50-4
154	Sodium peroxometaborate	7632-04-04
155	Sodium perborate; perboric acid, sodium salt	-
<b>17-Dec-2014 Date of SVHC Inclusion</b>		
156	Cadmium fluoride	7790-79-6
157	Cadmium sulphate	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)	-
<b>15-June-2015 Date of SVHC Inclusion</b>		
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate	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]	-
<b>17-December-2015 Date of SVHC Inclusion</b>		
164	Nitrobenzene	98-95-3
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	1,3-propanesultone	1120-71-4
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4
<b>20-June-2016 Date of SVHC Inclusion</b>		
169	Benzo[def]chrysene	50-32-8
<b>12-January-2017 Date of SVHC Inclusion</b>		
170	4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7
171	4-Heptylphenol, branched and linear substances	-
172	p-(1,1-dimethylpropyl) phenol	80-46-6
173	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2; 3108-42-7; 3830-45-3
<b>10-July-2017 Date of SVHC Inclusion</b>		
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4
<b>18-January-2018 Date of SVHC Inclusion</b>		
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[12.2.1.16,9.02,13.05,10]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 $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear]	-
<b>27-June-2018 Date of SVHC Inclusion</b>		
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

Note: This list is provided as a reference; the official Candidate List of SVHC for Authorization is posted on the ECHA website:

<http://echa.europa.eu/web/guest/candidate-list-table>