

Background

The Regulation, Evaluation, Authorization, and Restriction of Chemicals (REACH) is a European Community Regulation related to the safe use and identification of chemicals (Regulation (EC) Number 1907/2006).

REACH entered into force on June 1, 2007 with the aim of improving the protection of human health and the environment through better and earlier identification of the intrinsic properties of chemical substances. REACH was aimed at streamlining and improving former European Union chemical legislation by replacing approximately 40 individual pieces of legislation and harmonizing with the remaining legislation. The new legislative framework under REACH shifts responsibility for the control and safety of chemicals from government authorities to industry and created the European Chemicals Agency to act as a central coordinator.

Xilinx Responsibilities

Xilinx is a supplier of “articles” as defined in REACH. The “substances” contained in these articles are not intended to be released under normal or reasonably foreseeable conditions of use.

Xilinx will continue to monitor REACH developments and will comply with any applicable requirements. As Substances of Very High Concern (SVHCs) are added to Annex XIV of the Regulation (Authorization List), Xilinx will assess whether both of the following conditions are met:

1. The substance is present in the articles in quantities over one (1) ton per year
2. The substances are present in Xilinx® devices, development products and packing material above a concentration level of 0.1% w/w

Xilinx shall comply with the requirements of Article 7(2) and Article 33 of the Regulation, as necessary.

For informational purposes, Xilinx has contacted its material and manufacturing vendors who have confirmed to Xilinx that Xilinx devices, development products and packing material do not intentionally contain SVHCs above a concentration level of 0.1% w/w. In addition Xilinx is compliant with the substance restrictions listed in REACH Annex XVII that limits the use of certain substances for specific uses.

Further information on REACH can be obtained at: http://echa.europa.eu/reach_en.asp

Candidate SVHCs

Table 1: Candidate List of SVHCs defines the substances published by the European Chemicals Agency (ECHA) on the current Candidate List. Xilinx devices, development products and packing material do not intentionally contain SVHCs above a concentration level of 0.1% w/w.

Table 1: Candidate List of SVHCs

Item	Substance name	EC Number	CAS No.
1	4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9
2	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2
3	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8
4	Anthracene	204-371-1	120-12-7
5	Benzyl butyl phthalate	201-622-7	85-68-7
6	Bis (2-ethyl(hexyl)phthalate) (DEHP)	204-211-0	117-81-7
7	Bis (tributyltin) oxide (TBTO)	200-268-0	56-35-9
8	Diarsenic pentaoxide	215-116-9	1303-28-2
9	Diarsenic trioxide	215-481-4	1327-53-3
10	Dibutyl phthalate (DBP)	201-557-4	84-74-2
11	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α - HBCDD, β -HBCDD, γ -HBCDD)	247-148-4, 221-695-9	134237-50-6, 134237-51-7, 134237-52-8
12	Lead hydrogen arsenate	232-064-2	7784-40-9
13	Sodium dichromate	234-190-3	7789-12-0, 10588-01-9
14	Triethyl arsenate	427-700-2	15606-95-8
15	2,4-Dinitrotoluene	204-450-0	121-14-2
16	Anthracene oil	292-602-7	90640-80-5
17	Anthracene oil, anthracene-low	292-604-8	90640-82-7
18	Anthracene oil, anthracene paste	292-603-2	90640-81-6
19	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2
20	Anthracene oil, anthracene paste, distillation lights	295-278-5	91995-17-4
21	Diisobutyl phthalate (DIBP)	201-553-2	84-69-5
22	Lead chromate	231-846-0	7758-97-6
23	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8
24	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2

Table 1: Candidate List of SVHCs (Cont'd)

Item	Substance name	EC Number	CAS No.
25	Coal tar pitch, high temperature	266-028-2	65996-93-2
26	Tris (2-chloroethyl) phosphate	204-118-5	115-96-8
27	Acrylamide	201-173-7	79-06-1
28	Trichloroethylene	201-167-4	79-01-6
29	Boric acid	233-139-2 (234-343-4)	10043-35-3 (1113-50-1)
30	Disodium tetraborate, anhydrous	215-540-4	1330-43-4, (anhydrous) 12179-04-3, (pentahydrate) 1303-96-4, (decahydrate)
31	Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1
32	Potassium dichromate	231-906-6	7778-50-9
33	Ammonium dichromate	232-143-1	7789-09-5
34	Potassium chromate	232-140-5	7789-00-6
35	Sodium chromate	231-889-5	7775-11-3
36	Cobalt(II) sulphate	233-334-2	10124-43-3
37	Cobalt(II) dinitrate	233-402-1	10141-05-6
38	Cobalt(II) carbonate	208-169-4	513-79-1
39	Cobalt(II) diacetate	200-755-8	71-48-7
40	2-Methoxyethanol	203-713-7	109-86-4
41	2-Ethoxyethanol	203-804-1	110-80-5
42	Chromium trioxide	215-607-8	1333-82-0
43	Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid	231-801-5 - 236-881-5	7738-94-5 - 13530-68-2
44	2-Ethoxyethyl acetate	203-839-2	111-15-9
45	Strontium chromate	232-142-6	7789-06-2
46	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4
47	Hydrazine	206-114-9	302-01-2, 7803-57-8
48	1-Methyl-2-pyrrolidone	212-828-1	872-50-4

Table 1: Candidate List of SVHCs (Cont'd)

Item	Substance name	EC Number	CAS No.
49	1,2,3-Trichloropropane	202-486-1	96-18-4
50	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6
51	Cobalt dichloride	231-589-4	7646-79-9
52	N,N-dimethylacetamide	204-826-4	127-19-5
53	Lead azide – Lead diazide	236-542-1	13424-46-9
54	Lead styphnate	236-542-1	15345-44-0
55	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	202-918-9	101-14-4
56	Phenolphthalein	201-004-7	77-09-8
57	Lead dipicrate	229-335-2	6477-64-1
58	Aluminosilicate Refractory Ceramic Fibres (RCF) - 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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) content less or equal to 18% by weight	-	Extracted from: 650-017-00-8
59	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) - 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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) content less or equal to 18% by weight	-	Extracted from: 650-017-00-8
60	Bis(2-methoxyethyl)ether	203-924-4	111-96-6
61	1,2-Dichloroethane	203-458-1	107-06-2
62	Dichromium tris(chromate)	246-356-2	24613-89-6
63	Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9
64	Pentazinc chromate octahydroxide	256-418-0	49663-84-5
65	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	500-036-1	25214-70-4
66	Bis(2-methoxyethyl) phthalate	204-212-6	117-82-6
67	Arsenic acid	231-901-9	7778-39-4

Table 1: Candidate List of SVHCs (Cont'd)

Item	Substance name	EC Number	CAS No.
68	Calcium arsenate	231-904-5	7778-44-1
69	Trilead diarsenate	222-979-5	3687-31-8
70	2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0
71	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	205-507-9	140-66-9
72	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	208-953-6	548-62-9
73	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	219-943-6	2580-56-5
74	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1
75	β -TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	423-400-0	59653-74-6
76	Diboron trioxide	215-125-8	1303-86-2
77	a,a-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	229-851-8	6786-83-0
78	1,2-bis(2-methoxyethoxy)ethane (TEGDME triglyme)	203-977-3	112-49-2
79	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	209-218-2	561-41-1
80	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	219-514-3	2451-62-9
81	Formamide	200-842-0	75-12-7
82	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8
83	Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2
84	1,2-dimethoxyethane ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4
85	Pyrochlore, antimony lead yellow	232-382-1	8012-00-8
86	6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8
87	Henicosafuoroundecanoic acid	218-165-4	2058-94-8
88	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
89	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
90	Dibutyltin dichloride (DBTC)	211-670-0	683-18-1
91	Lead bis(tetrafluoroborate)	237-486-0	13814-96-5

Table 1: Candidate List of SVHCs (Cont'd)

Item	Substance name	EC Number	CAS No.
92	Lead dinitrate	233-245-9	10099-74-8
93	Silicic acid, lead salt	234-363-3	11120-22-2
94	4-Aminoazobenzene	200-453-6	60-09-3
95	Lead titanium zirconium oxide	235-727-4	12626-81-2
96	Lead monoxide (lead oxide)	215-267-0	1317-36-8
97	o-Toluidine	202-429-0	95-53-4
98	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2
99	Silicic acid (H ₂ Si ₂ O ₅), 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]	272-271-5	68784-75-8
100	Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6
101	Furan	203-727-3	110-00-9
102	N,N-dimethylformamide	200-679-5	68-12-2
103	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-
104	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]	-	-
105	4,4'-methylenedi-o-toluidine	212-658-8	838-88-0
106	Diethyl sulphate	200-589-6	64-67-5
107	Dimethyl sulphate	201-058-1	77-78-1
108	Lead oxide sulfate	234-853-7	12036-76-9
109	Lead titanium trioxide	235-038-9	12060-00-3
110	Acetic acid, lead salt, basic	257-175-3	51404-69-4
111	[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9
112	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5
113	N-methylacetamide	201-182-6	79-16-3
114	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7
115	1,2-Diethoxyethane	211-076-1	629-14-1

Table 1: Candidate List of SVHCs (Cont'd)

Item	Substance name	EC Number	CAS No.
116	Tetralead trioxide sulphate	235-380-9	12202-17-4
117	N-pentyl-isopentylphthalate	-	776297-69-9
118	Dioxobis(stearato)trilead	235-702-8	12578-12-0
119	Tetraethyllead	201-075-4	78-00-2
120	Pentalead tetraoxide sulphate	235-067-7	12065-90-6
121	Pentacosafuorotridecanoic acid	276-745-2	72629-94-8
122	Tricosafuorododecanoic acid	206-203-2	307-55-1
123	Heptacosafuorotetradecanoic acid	206-803-4	376-06-7
124	1-bromopropane (n-propyl bromide)	203-445-0	106-94-5
125	Methoxyacetic acid	210-894-6	625-45-6
126	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7
127	Methyloxirane (Propylene oxide)	200-879-2	75-56-9
128	Trilead dioxide phosphonate	235-252-2	12141-20-7
129	o-aminoazotoluene	202-591-2	97-56-3
130	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0
131	4,4'-oxydianiline and its salts	202-977-0	101-80-4
132	Orange lead (lead tetroxide)	215-235-6	1314-41-6
133	Biphenyl-4-ylamine	202-177-1	92-67-1
134	Diisopentylphthalate	210-088-4	605-50-5
135	Fatty acids, C16-18, lead salts	292-966-7	91031-62-8
136	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3
137	Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7
138	Lead cyanamidate	244-073-9	20837-86-9
139	Cadmium	231-152-8	7440-43-9
140	Cadmium oxide	215-146-2	1306-19-0
141	Ammonium pentadecafluorooctanoate	223-320-4	3825-26-1

Table 1: Candidate List of SVHCs (Cont'd)

Item	Substance name	EC Number	CAS No.
142	Pentadecafluorooctanoic acid	206-397-9	335-67-1
143	Dipentyl phthalate	205-017-9	131-18-0
144	4-Nonylphenol, branched and linear, ethoxylated	-	-
145	Cadmium Sulphide	215-147-8	1306-23-6
146	Diphexyl Phthalate	201-559-5	84-75-3
147	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
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)	217-710-3	1937-37-7
149	imidazolidine-2-thione; 2-imidazoline-2-thiol	202-506-9	96-45-7
150	Lead di(acetate)	206-104-4	301-04-2
151	Trixylyl phosphate	246-677-8	25155-23-1
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4
153	Sodium perborate; perboric acid, sodium salt	239-172-9, 234-390-0	-
154	Sodium peroxometaborate	231-556-4	7632-04-4
155	Cadmium chloride	233-296-7	10108-64-2
156	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7
157	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1
158	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)	-	-
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1
160	Cadmium Fluoride	232-222-0	7790-79-6
161	Cadmium Sulphate	233-331-6	10124-36-4, 31119-53-6
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	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]	-	-

Table 1: Candidate List of SVHCs (Cont'd)

Item	Substance name	EC Number	CAS No.
164	1,3-propanesultone	214-317-9	1120-71-4
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol	223-383-8	3864-99-1
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol	253-037-1	36437-37-3
167	Nitrobenzene	202-716-0	98-95-3
168	Perfluorononan-1-oic acid and its sodium and ammonium salts	- 206-801-3 -	375-95-1 21049-39-8 4149-60-4
169	Benzo[def]chrysene	200-028-5	50-32-8
170	4,4'-isopropylidenediphenol	201-245-8	80-05-7
171	4-Heptylphenol, branched and linear	-	-
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts. This entry has the following member substances:		
	Nonadecafluorodecanoic acid	206-400-3	335-76-2
	Ammonium nonadecafluorodecanoate	221-470-5	3108-42-7
	Decanoic acid, nonadecafluoro-, sodium salt	-	3830-45-3
173	p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6
174	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	-	-

References

General queries in relation to REACH can be directed to Xilinx Technical Support: <http://www.xilinx.com/support/service-portal/contact-support.html>

Revision History

The following table shows the revision history for this document

Date	Version	Description of Revisions
03/02/10	1.0	Initial Xilinx release. Created from REACH Position Statement (Rev 2.0) dated July, 2009.
07/06/10	1.1	Added items 30 through to 38 to Table 1
02/25/11	1.2	Added items 39 through to 46 in Table 1
05/20/11	1.3	Expand applicability of statement to Xilinx development products
08/19/11	1.4	<ol style="list-style-type: none"> 1. Revise Xilinx position from importer to supplier 2. Re-ordered list of SVHCs chronologically 3. Added items 47 through to 53 in Table 1 4. Expand applicability of statement to packing material 5. Include statement of compliance to restrictions listed in REACH Annex XVII 6. Update Xilinx contact details
02/06/12	1.5	Added items 54 through to 73 in Table 1.
07/06/12	1.6	<ol style="list-style-type: none"> 1. Add the word "intentionally" in para. 4 of Xilinx responsibilities In Table 1 2. Consolidate entries of aluminosilicate refractory ceramic fibres (Al-RCF) and zirconia aluminosilicate refractory ceramic fibres (ZrAl-RCF). 3. Add 13 items 72 through to 84.
03/08/13	1.7	Add 54 items 85 through to 138
08/20/13	1.8	Add 6 items 138 through to 144
01/02/14	1.9	Add 7 items 144 to 151
07/19/14	1.10	Add 4 items 152 to 155
02/06/15	1.11	Add 6 items 156 to 161. Remove %W/W column as text in Xilinx Responsibilities covers the intent of the content in this column.
08/14/15	1.12	Add 2 items 162 to 163. Update Technical Support Link
02/05/16	1.13	Add 5 items 164 to 168
08/12/16	1.14	Add 1 item 169
01/25/17	1.15	Add 4 items 170 to 173
07/11/17	1.16	Add 1 item 174

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