

## Certificate Regarding REACH(SVHC13)

Materials on the SVHC13list (163 substances) are not intentionally used or included over 0.1% of mass ratio for the following Amorphous products, which are produced by Toshiba Materials, supplied by Toshiba America Electronic Components, Inc..

Manufacturing process also does not intentionally use these materials.

I . Supplied product, part, material name

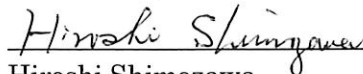
Product Name	Model Name
AMOBeads™	AB series
SPIKE KILLER™	SS series
Saturable Core	MS / MT series

II . Substances subject of non-use guarantee

ECHA has published SVHC13 (163 substances) \* listed on a separate sheet attached

\* 163 substances material are from "June 15, 2015 ECHA published minutes approved substances list".

August 01, 2015



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Manager

Quality Assurance Group

TOSHIBA MATERIALS CO.,LTD.

**SVHC:List {REACH(Annex XIV)} 1/5**

No.	Substance Name	CAS No.
1	Anthracene	120-12-7
2	4,4'- Diaminodiphenylmethane [MDA]	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-ethylhexyl)phthalate [DEHP]	117-81-7
10	Hexabromocyclododecane [HBCDD]	25637-99-4
	all major diastereoisomers identified ( $\alpha$ -HBCDD, $\beta$ -HBCDD, $\gamma$ -HBCDD) :	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 [TBTO]	56-35-9
13	Lead hydrogen arsenate	7784-40-9
14	Triethyl arsenate	15606-95-8
15	Benzyl butyl phthalate [BBP]	85-68-7
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 [DIBP]	84-69-5
—	Aluminosilicate, Refractory Ceramic Fibres	—
—	Zirconia Aluminosilicate, Refractory Ceramic Fibres	—
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	Acrylamide	79-06-1
27	Tris(2-chloroethyl)phosphate	115-96-8
28	Pitch, Coal tar, high temp.	65996-93-2
29	Trichloroethylene	79-01-6
30	Boric acid	10043-35-3, 11113-50-1
31	Disodium tetraborate, anhydrous	12179-04-3, 1330-43-4, 1303-96-4
32	Tetraboron disodium heptaoxide, hydrate	12267-73-1

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No.	Substance Name	CAS No.
33	Sodium chromate	7775-11-3
34	Potassium chromate	7789-00-6
35	Ammonium dichromate	7789-09-5
36	Potassium dichromate	7778-50-9
37	Cobalt(II) sulphate	10124-43-3
38	Cobalt(II) dinitrate	10141-05-6
39	Cobalt(II) carbonate	513-79-1
40	Cobalt(II) diacetate	71-48-7
41	2-Methoxyethanol	109-86-4
42	2-Ethoxyethanol	110-80-5
43	Chromium trioxide	1333-82-0
44	•Chromic acid	7738-94-5
	•Dichromic acid	13530-68-2
	•Oligomers of chromic acid and dichromic acid	—
45	2-ethoxyethyl acetate	111-15-9
46	strontium chromate	7789-06-2
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	JAMP-SN0007
56	Zirconia Aluminosilicate Refractory Ceramic Fibres	JAMP-SN0055
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-octyl 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	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

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No.	Substance Name	CAS No.
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	$\beta$ -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	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride ? (C.I. Basic Violet 3)	548-62-9
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	$\alpha, \alpha$ -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
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)	85-42-7,13149-00-3, 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 (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 (DBTC)	683-18-1
102	Acetic acid, lead salt, basic	51404-69-4
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)	1319-46-6

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No.	Substance Name	CAS No.
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 cyanamate	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; n-propyl bromide	106-94-5

**SVHC:List {REACH(Annex XIV)} 5/5**

No.	Substance Name	CAS No.
139	Cadmium	7440-43-9
140	Cadmium oxide	1306-19-0
141	Dipentyl phthalate (DPP)	131-18-0
142	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]	-
143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
144	Pentadecafluorooctanoic acid (PFOA)	335-67-1
145	Cadmium sulphide	1306-23-6
146	Diethyl 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	Triethyl phosphate	25155-23-1
152	Cadmium chloride	10108-64-2
153	1,2-Benzenedicarboxylic acid, diethyl ester, branched and linear	68515-50-4
154	Sodium peroxometaborate	7632-04-4
155	Sodium perborate; perboric acid, sodium salt	-
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)	-
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 stereoisomers of [1] and [2] or any combination thereof]	-