



RoHS Certificate of Compliance

Chilisin Electronics Corp. hereby declares all parts that delivered to our customer are RoHS compliance with directive 2011/65/EU & amendment 2015/863/EU, and require no exemptions.

All parts fully follow the below standard and if there is any excessive substance existence, Chilisin will take the responsibility of this issue after having the common consensus with each other.

Substance	Permissible limit (by weight)
Pb	<= 1000ppm (0.1%)
Cd	<= 100ppm (0.01%)
Hg	<= 1000ppm (0.1%)
Cr6+	<= 1000ppm (0.1%)
PBBs	<= 1000ppm (0.1%)
PBDEs	<= 1000ppm (0.1%)
DEHP	<= 1000ppm (0.1%)
DBP	<= 1000ppm (0.1%)
BBP	<= 1000ppm (0.1%)
DIBP	<= 1000ppm (0.1%)

Accepted and agreed by

Senior Manager, QRA Dept.: Dr. Peter Chiu

Signature: *Peter Chiu*

Date: 2017/6/2

REACH Declaration

Att: All customers

Chilisin Electronics Corp. (Chilisin) hereby declares the Substance of Very High Concern (SVHC) in BMRA/BMRB/BMRG/BMRF Series products delivered to our customers are less than 0.1 % w/w (less than 1000mg/kg, ppm).

The List might be varied or updated due to different opinions from EU committee members or market, and published in the following Website address:

<https://echa.europa.eu/candidate-list-table>

Chilisin nowadays merely promises the **174** Substances of Very High Concern (SVHC) in products are under above-mentioned threshold limits.

No.	Substances of very high concern	CAS number	EC number	Reason for Inclusion
1	Anthracene	120-12-7	204-371-1	PBT (article 57d)
2	4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	Carcinogenic (article 57a)
3	Dibutyl phthalate (DBP)	84-74-2	201-557-4	Toxic for reproduction (article 57c)
4	Cobalt dichloride	7646-79-9	231-589-4	Carcinogenic (article 57a)
5	Diarsenic pentaoxide	1303-28-2	215-116-9	Carcinogenic (article 57a)
6	Diarsenic trioxide	1327-53-3	215-481-4	Carcinogenic (article 57a)
7	Sodium dichromate	7789-12-0 10588-01-9	234-190-3	Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c)
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4	vPvB (article 57e)
9	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	204-211-0	Equivalent level of concern having probable serious effects to the environment (Article 57 f); Toxic for reproduction (article 57c)
10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	247-148-4 and 221-695-9	PBT (article 57d)
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5	PBT and vPvB (articles 57 d and 57 e)
12	Bis(tributyltin)oxide (TBTO)	56-35-9	200-268-0	PBT (article 57d)
13	Lead hydrogen arsenate	7784-40-9	232-064-2	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
14	Triethyl arsenate	15606-95-8	427-700-2	Carcinogenic (article 57a)
15	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	Toxic for reproduction (article 57c)
16	Anthracene oil	90640-80-5	292-602-7	Carcinogenic ¹ , PBT and vPvB (articles 57a, 57d and 57e)
17	Anthracene oil, anthracene paste, distn. lights	91995-17-4	295-278-5	Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e)
18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e)
19	Anthracene oil, anthracene-low	90640-82-7	292-604-8	Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e)
20	Anthracene oil, anthracene paste	90640-81-6	292-603-2	Carcinogenic ² , mutagenic ³ , PBT and vPvB (articles 57a, 57b, 57d and 57e)
21	Pitch, coal tar, high temp.	65996-93-2	266-028-2	Carcinogenic, PBT and vPvB (articles 57a, 57d and 57e)
22	2,4-Dinitrotoluene	121-14-2	204-450-0	Carcinogenic (article 57a)
23	Diisobutyl phthalate	84-69-5	201-553-2	Toxic for reproduction (article 57c)
24	Lead chromate	7758-97-6	231-846-0	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
25	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	235-759-9	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
26	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	215-693-7	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
27	Tris(2-chloroethyl)phosphate	115-96-8	204-118-5	Toxic for reproduction (article 57c)
28	Acrylamide	79-06-1	210-173-7	Carcinogenic and mutagenic (articles 57 a and 57 b)

No.	Substances of very high concern	CAS number	EC number	Reason for inclusion
29	Trichloroethylene	79-01-6	201-167-4	Carcinogenic (article 57 a)
30	Boric acid	10043-35-3 11113-50-1	233-139-2 234-343-4	Toxic for reproduction (article 57 c)
31	Disodium tetraborate, anhydrous	1303-96-4 1330-43-4 12179-04-3	215-540-4	Toxic for reproduction (article 57 c)
32	Tetraboron disodium heptaoxide, hydrate	12267-73-1	235-541-3	Toxic for reproduction (article 57 c)
33	Sodium chromate	7775-11-3	231-889-5	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
34	Potassium chromate	7789-00-6	232-140-5	Carcinogenic and mutagenic (articles 57 a and 57 b).
35	Ammonium dichromate	7789-09-5	232-143-1	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
36	Potassium dichromate	7778-50-9	231-906-6	Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c)
37	Cobalt(II) sulphate	10124-43-3	233-334-2	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
38	Cobalt(II) dinitrate	10141-05-6	233-402-1	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
39	Cobalt(II) carbonate	513-79-1	208-169-4	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
40	Cobalt(II) diacetate	71-48-7	200-755-8	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
41	2-Methoxyethanol	109-86-4	203-713-7	Toxic for reproduction (article 57c)
42	2-Ethoxyethanol	110-80-5	203-804-1	Toxic for reproduction (article 57c)
43	Chromium trioxide	1333-82-0	215-607-8	Carcinogenic and mutagenic (articles 57 a and 57 b)
44	Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid	7738-94-5 - 13530-68-2	231-801-5 - 236-881-5	Carcinogenic (article 57a)
45	1,2-Benzenedicarboxylic acid ,di-C6 -8- branched alkyl esters, C7-rich (DIHP)	71888-89-6	276-158-1	Toxic for reproduction (article 57c)
46	1,2,3-trichloropropane	96-18-4	276-158-1	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
47	1-methyl-2 -p yrrolidone	872-50-4	212-828-1	Toxic for reproduction (article 57c)
48	Hydrazine	7803-57-8 302-01-2	206-114-9	Carcinogenic (article 57a)
49	1,2-Benzenedicarboxylic acid , di-C7 -11 - branched and linear alkyl esters (DHNUP)	68515-42-4	271-084-6	Toxic for reproduction (article 57c)
50	Strontium chromate	7789-06-2	232-142-6	Carcinogenic (article 57a)
51	2-ethoxyethyl acetate	111 -15-9	203-839-2	Toxic for reproduction (article 57c)
52	Zirconia Aluminosilicate Refractory Ceramic Fibres 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 (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-	Carcinogenic (article 57 a)
53	Calcium arsenate	7778-44-1	231-904-5	Carcinogenic (article 57 a)
54	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	Toxic for reproduction (article 57 c)

No.	Substances of very high concern	CAS number	EC number	Reason for Inclusion
55	Aluminosilicate Refractory Ceramic Fibres 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 (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-	Carcinogenic (article 57 a)
56	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	234-329-8	Carcinogenic (article 57 a)
57	Lead dipicrate	6477-64-1	229-335-2	Toxic for reproduction (article 57 c)
58	N,N-dimethylacetamide	127-19-5	204-826-4	Toxic for reproduction (article 57 c)
59	Arsenic acid	7778-39-4	231-901-9	Carcinogenic (article 57 a)
60	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	Carcinogenic (article 57 a)
61	Trilead diarsenate	3687-31-8	222-979-5	Carcinogenic and toxic for reproduction (articles 57 a and 57 c)
62	1,2-dichloroethane	107-06-2	203-458-1	Carcinogenic (article 57 a)
63	Pentazinc chromate octahydroxide	49663-84-5	256-418-0	Carcinogenic (article 57 a)
64	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	205-426-2	Equivalent level of concern having probable serious effects to the environment (article 57 f)
65	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	500-036-1	Carcinogenic (article 57 a)
66	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	Toxic for reproduction (article 57 c)
67	Lead diazide, Lead azide	13424-46-9	236-542-1	Toxic for reproduction (article 57 c)
68	Lead styphnate	15245-44-0	239-290-0	Toxic for reproduction (article 57 c)
69	2,2'-dichloro-4,4'-methylenedianiline	101-14-4	202-918-9	Carcinogenic (article 57 a)
70	Phenolphthalein	77-09-8	201-004-7	Carcinogenic (article 57 a)
71	Dichromium tris(chromate)	24613-89-6	246-356-2	Carcinogenic (article 57 a)
72	Formamide	75-12-7	200-842-0	Toxic for reproduction (Article 57 c)
73	[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	219-943-6	Carcinogenic (Article 57a)
74	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	Carcinogenic (Article 57a)
75	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5	Carcinogenic (Article 57a)
76	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	219-514-3	Mutagenic (Article 57b)
77	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	229-851-8	Carcinogenic (Article 57a)
78	Diboron trioxide	1303-86-2	215-125-8	Toxic for reproduction (Article 57 c)
79	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	Toxic for reproduction (Article 57 c)
80	Lead(II) bis(methanesulfonate)	17570-76-2	401-750-5	Toxic for reproduction (Article 57 c)
81	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	209-218-2	Carcinogenic (Article 57a)
82	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3	Toxic for reproduction (Article 57 c)
83	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	423-400-0	Mutagenic (Article 57b)
84	[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	208-953-6	Carcinogenic (Article 57a)

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85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	PBT (Article 57 d); vPvB (Article 57 e)
86	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	vPvB (Article 57 e)
87	Tricosafuorododecanoic acid	307-55-1	206-203-2	vPvB (Article 57 e)
88	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	vPvB (Article 57 e)
89	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	vPvB (Article 57 e)
90	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	Equivalent level of concern having probable serious effects to human health (Article 57 f)
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	201-604-9 236-086-3 238-009-9	Equivalent level of concern having probable serious effects to human health (Article 57 f)
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	247-094-1 243-072-0 256-356-4 260-566-1	Equivalent level of concern having probable serious effects to human health (Article 57 f)
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]	-	-	Equivalent level of concern having probable serious effects to the environment (Article 57 f)
94	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	Equivalent level of concern having probable serious effects to the environment (Article 57 f)
95	Methoxyacetic acid	625-45-6	210-894-6	Toxic for reproduction (Article 57 c)
96	N,N-dimethylformamide	68-12-2	200-679-5	Toxic for reproduction (Article 57 c)
97	Dibutyltin dichloride (DBTC)	683-18-1	211-670-0	Toxic for reproduction (Article 57 c)
98	Lead monoxide (lead oxide)	1317-36-8	215-267-0	Toxic for reproduction (Article 57 c)
99	Orange lead (lead tetroxide)	1314-41-6	215-235-6	Toxic for reproduction (Article 57 c)
100	Lead bis(tetrafluoroborate)	13814-96-5	237-486-0	Toxic for reproduction (Article 57 c)
101	Trilead bis(carbonate)dihydroxide	1319-46-6	215-290-6	Toxic for reproduction (Article 57 c)
102	Lead titanium trioxide	12060-00-3	235-038-9	Toxic for reproduction (Article 57 c)
103	Lead titanium zirconium oxide	12626-81-2	235-727-4	Toxic for reproduction (Article 57 c)
104	Silicic acid, lead salt	11120-22-2	234-363-3	Toxic for reproduction (Article 57 c)
105	Silicic acid (H ₂ SiO 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]	68784-75-8	272-271-5	Toxic for reproduction (Article 57 c)
106	1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	Toxic for reproduction (Article 57 c)
107	Methyloxirane (Propylene oxide)	75-56-9	200-879-2	Carcinogenic (Article 57a); Mutagenic (Article 57b)
108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	Toxic for reproduction (Article 57 c)
109	Diisopentylphthalate (DIPP)	605-50-5	210-088-4	Toxic for reproduction (Article 57 c)
110	N-pentyl-isopentylphthalate	776297-69-9	-	Toxic for reproduction (Article 57 c)
111	1,2-Diethoxyethane	629-14-1	211-076-1	Toxic for reproduction (Article 57 c)
112	Acetic acid, lead salt, basic	51404-69-4	257-175-3	Toxic for reproduction (Article 57 c)
113	Lead oxide sulfate	12036-76-9	234-853-7	Toxic for reproduction (Article 57 c)
114	[Phthalato(2-)]dioxotrillead	69011-06-9	273-688-5	Toxic for reproduction (Article 57 c)
115	Dioxobis(stearato)trilead	12578-12-0	235-702-8	Toxic for reproduction (Article 57 c)
116	Fatty acids, C16-18, lead salts	91031-62-8	292-966-7	Toxic for reproduction (Article 57 c)
117	Lead cyanamidate	20837-86-9	244-073-9	Toxic for reproduction (Article 57 c)
118	Lead dinitrate	10099-74-8	233-245-9	Toxic for reproduction (Article 57 c)
119	Pentalead tetraoxide sulphate	12065-90-6	235-067-7	Toxic for reproduction (Article 57 c)
120	Pyrochlore, antimony lead yellow	8012-00-8	232-382-1	Toxic for reproduction (Article 57 c)
121	Sulfurous acid, lead salt, dibasic	62229-08-7	263-467-1	Toxic for reproduction (Article 57 c)
122	Tetraethyllead	78-00-2	201-075-4	Toxic for reproduction (Article 57 c)
123	Tetralead trioxide sulphate	12202-17-4	235-380-9	Toxic for reproduction (Article 57 c)
124	Trilead dioxide phosphonate	12141-20-7	235-252-2	Toxic for reproduction (Article 57 c)
125	Furan	110-00-9	203-727-3	Carcinogenic (Article 57a)

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126	Diethyl sulphate	64-67-5	200-589-6	Carcinogenic (Article 57a); Mutagenic (Article 57b)
127	Dimethyl sulphate	77-78-1	201-058-1	Carcinogenic (Article 57a)
128	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	Toxic for reproduction (Article 57 c)
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	Toxic for reproduction (Article 57 c)
130	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	Carcinogenic (Article 57a)
131	4,4'-oxydianiline and its salts	101-80-4	202-977-0	Carcinogenic (Article 57a); Mutagenic (Article 57b)
132	4-Aminoazobenzene	60-9-3	200-453-6	Carcinogenic (Article 57a)
133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	Carcinogenic (Article 57a)
134	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	Carcinogenic (Article 57a)
135	Biphenyl-4-ylamine	92-67-1	202-177-1	Carcinogenic (Article 57a)
136	o-aminoazotoluene	97-56-3	202-591-2	Carcinogenic (Article 57a)
137	o-Toluidine	95-53-4	202-429-0	Carcinogenic (Article 57a)
138	N-methylacetamide	79-16-3	201-182-6	Toxic for reproduction (Article 57 c)
139	Cadmium	7440-43-9	231-152-8	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)
140	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	Toxic for reproduction (Article 57 c); PBT (Article 57 d)
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	Toxic for reproduction (Article 57 c); PBT (Article 57 d)
142	Dipentyl phthalate (DPP)	131-18-0	205-017-9	Toxic for reproduction (Article 57 c)
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]	-	-	Equivalent level of concern having probable serious effects to the environment (Article 57 f)
144	Cadmium oxide	1306-19-0	215-146-2	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)
145	Cadmium sulphide	1306-23-6	215-147-8	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57 f)
146	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	217-710-3	Carcinogenic (Article 57a);
147	Dihexyl phthalate	84-75-3	201-559-5	Toxic for reproduction (Article 57 c);
148	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	202-506-9	Toxic for reproduction (Article 57 c);
149	Trixylyl phosphate	25155-23-1	246-677-8	Toxic for reproduction (Article 57 c);
150	Disodium 3,3'-[[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	209-358-4	Carcinogenic (Article 57a);
151	Lead di(acetate)	301-04-2	206-104-4	Toxic for reproduction (Article 57 c);
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	Toxic for reproduction (Article 57 c)
153	Sodium perborate; perboric acid, sodium salt	-	239-172-9; 234-390-0	Toxic for reproduction (Article 57 c)
154	Sodium peroxometaborate	7632-04-4	231-556-4	Toxic for reproduction (Article 57 c)
155	Cadmium chloride	10108-64-2	233-296-7	Carcinogenic (Article 57a); Mutagenic (Article 57b); Toxic for reproduction (Article 57c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
156	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	PBT (Article 57 d);vPvB (Article 57 e)
157	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	239-622-4	Toxic for reproduction (Article 57 c)
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)	-	-	Toxic for reproduction (Article 57 c)
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	PBT (Article 57 d);vPvB (Article 57 e)

No.	Substances of very high concern	CAS number	EC number	Reason for Inclusion
160	Cadmium fluoride	7790-79-6	232-222-0	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
161	Cadmium sulphate	10124-36-4, 31119-53-6	233-331-6	Carcinogenic (Article 57 a); Mutagenic (Article 57 b); Toxic for reproduction (Article 57 c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
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 (EC No. 201-559-5)	68515-51-5, 68648-93-1	271-094-0, 272-013-1	Toxic for reproduction (Article 57 c)
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]	-	-	vPvB (Article 57e)
164	1,3-propanesultone	1120-71-4	214-317-9	Carcinogenic (Article 57 a)
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	vPvB (Article 57 e)
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	vPvB (Article 57 e)
167	Nitrobenzene	98-95-3	202-716-0	Toxic for reproduction (Article 57 c)
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3	Toxic for reproduction (Article 57 c) PBT (Article 57 d)
169	Benzo[def]chrysene	50-32-8	200-028-5	Carcinogenic (Article 57a) Mutagenic (Article 57b) Toxic for reproduction (Article 57c) PBT (Article 57 d) vPvB (Article 57 e)
170	4,4'-isopropylidenediphenol Bisphenol A; BPA	80-05-7	201-245-8	• Toxic for reproduction (Article 57c) • Endocrine disrupting properties (Article 57(f) - human health)
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	-	-	Equivalent level of concern having probable serious effects to environment (Article 57 f)
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts Nonadecafluorodecanoic acid Ammonium nonadecafluorodecanoate Decanoic acid, nonadecafluoro-, sodium salt	335-76-2 3108-42-7 3830-45-3	206-400-3 221-470-5 -	Toxic for reproduction (Article 57c) PBT (Article 57 d)
173	p-(1,1-dimethylpropyl)phenol	80-46-6	201-280-9	Equivalent level of concern having probable serious effects to environment (Article 57 f)
174	Perfluorohexane-1-sulphonic acid and its salts; PFHxS	-	-	vPvB (Article 57e)

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Agreed and accepted by

Senior Manager, Quality(QRA) Dept.: Dr. Peter Chiu

Signature: 

Date: 2017/7/14