



Jan.6th, 2014

Declaration of RoHS (including PFOS & REACH) Compliance

Dear Customer,

ISSI hereby declares that all our lead free products satisfy the following requirements/conditions:

- 1) Using an "L" , "G" or after the package type designating letter in the IS prefix or IC prefix part number for identification respectively.
- 2) Complying with the RoHS (EU Directive entitled "Restriction on the use of certain Hazardous Substances 2011/65/EU, and 2006/122/EC") requirements and containing none of the following 7 substances: Pb, Hg, Cd, Cr(VI), PBB, PBDE, and PFOS.
- 3) Complying with the IPC/JEDEC J-STD-020C with regard to the solder profile requirement (Max. reflow temperature 260 deg.C)
- 4) Complying with the 151 SVHC (Substance of Very High concern) of EU directive of the Regulation (EC) No 1907/2006 (REACH): the part shall not contain more than the 0.1% of the following SVHC by weight of part as defined in appendix also including annex XVII.
ECHA Candidate list table : <http://echa.europa.eu/web/guest/candidate-list-table>
- 5) Complying with IEC 61249-2-21, JPCA-ES01 2003 & IPC 4101, the Br, Cl , must be lower than 900 ppm, respectively, and total amount of PPM must be lower than 1500 ppm (Br + Cl < 1500 ppm).
- 6) Not use the materials from mines with inferior working conditions, such as DRC (Democratic Republic of the Congo). The suppliers or subcontractors will be trace the supply chain for gold (Au), tantalum (Ta), tungsten (W), tin (Sn) and cobalt (Co).

This Declaration is made with ISSI's best commercial effort to verify the compliance, of its suppliers, with the above requirement, and is given in good faith without any responsibility or liability. The statement here above does not extend to or apply to the procedures subject to unintentional contamination, misuse, neglect, accident, improper installation or any use in violation of instructions furnished by ISSI.

This Declaration contains the entire understanding between you and ISSI with respect to this subject matter and supersedes all prior agreements, understandings and/or representations.

Please let us know if there is any further concern.

Sincerely Yours,

Shou-kong Fan
Vice President
Quality & Reliability Assurance Division

No.2, Technology Rd. V, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.

Appendix: Complying with the 151 SVHC (substance of very high concern) of the Regulation (EC) No 1907/2006 (REACH)

Revision: 16th Dec. 2013

No.	Substance Name	CAS No.
1	三乙基砷酸酯 Triethyl arsenate	15606-95-8
2	蒽 Anthracene	120-12-7
3	4,4'-二氨基二苯甲烷 4,4'-Diaminodiphenylmethane(MDA)	101-77-9
4	鄰苯二甲酸二丁酯 Dibutyl phthalate(DBP)	84-74-2
5	氯化鈷 Cobalt dichloride	7646-79-9
6	五氧化二砷 Diarsenic Pentaoxide	1303-28-2
7	三氧化二砷 Diarsenic trioxide	1327-53-3
8	重鉻酸鈉·二倍結晶水 Sodium Dichromate	7789-12-0 10588-01-9
9	5-叔丁基-2,4,6-三硝基間二甲苯 5-tert-butyl-2,4,6-trinitro-m-xylene(musk xylene)	81-15-2
10	鄰苯二甲酸二(2-乙基己基)酯 Bis(2-ethylhexyl) Phthalate (DEHP)	117-81-7
11	六溴環十二烷 Hexabromocyclododecane(HBCDD) and all major diastereois	134237-50-6 134237-52-8 134237-51-7
12	短鏈氯化路蠟 Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8
13	氧化三丁錫 Bis(tributyltin)oxide (TBTO)	56-35-9
14	砷酸氫鉛 Lead hydrogen arsenate	7784-40-9
15	鄰苯二甲酸丁酯苯甲酯 Benzyl butyl phthalate (BBP)	85-68-7
16	蒽油 Anthracene oil	90640-80-5
17	蒽油·蒽糊·輕油 Anthracene oil, anthracene paste, distn. Lights*	91995-17-4
18	蒽油·蒽糊·蒽醌分離液 Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
19	蒽油·含蒽量少 Anthracene oil, anthracene-low	90640-82-7
20	蒽油·蒽糊 Anthracene oil, anthracene paste	90640-81-6
21	煤瀝青·高溫 Coal tar pitch, high temperature	65996-93-2
22	丙烯醯胺 Acrylamide	79-06-1
23	矽酸鋁·陶瓷耐火纖維 Aluminosillcate, Refractory Ceramic Fibres	None
24	矽酸鋁氧化鋯·陶瓷耐火纖維 Zirconia Aluminosilicate, Refractor Ceramic Fibres	None
25	2,4-二硝基甲苯 2,4-Dinitrotoluene	121-14-2
26	鄰苯二甲酸二異丁酯 Dilsobutyl phthalate	84-69-5
27	鉻酸鉛 Lead chromate	7758-97-6
28	紅色鉬鉻酸硫酸鹽 Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8

No.2, Technology Rd. V, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.

Tel: 886-3-5780333 Fax: 886-3-5783000 Web: www.issi.com

No.	Substance Name	CAS No.
29	黃色硫化鉻酸鉛 Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
30	三 2-(氯乙基)磷酸酯 Tris (2-chloroethyl) phosphate	115-96-8
31	三氯乙烯 Trichloroethylene	79-01-6
32	硼酸 Boric acid	10043-35-3 11113-50-1
33	無水四硼酸二鈉 Disodium tetraborate, anhydrous	1303-96-4 1330-43-4 12197-04-3
34	水合七氧四硼酸二鈉 Tetraboron disodium heptaoxide, hydrate	12267-73-1
35	鉻酸鈉 Sodium chromate	7775-113
36	鉻酸鉀 Potassium chromate	7789-00-6
37	重鉻酸銨 Ammonium dichromate	2151163
38	重鉻酸鉀 Potassium dichromate	7778-50-9
39	硫酸鈷 Cobalt sulfate	10124-43-3
40	硝酸鈷 Cobalt dinitrate	10141-05-6
41	碳酸鈷 Cobalt carbonate	513-79-1
42	醋酸鈷 Cobalt diacetate	71-48-7
43	2-甲氧基乙醇 2-Methoxyethanol	109-86-4
44	2-乙氧基乙醇 2-Ethoxyethanol	110-80-5
45	三氧化鉻 Chromium trioxide	1333-82-0
46	三氧化二鉻 Chromic acid/重鉻酸 Dichromic acid	7738-94-5 13530-68-2
47	乙酸-2-乙氧基乙酯 2-ethoxyethyl acetate	111-15-9
48	鉻酸銣 Strontium chromate	7789-6-2
49	鄰苯二甲酸二(C7-11支鏈與直鏈)烷基酯 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4
50	胼 Hydrazine	302-01-2 7803-57-8
51	N-甲基吡咯烷酮 1-methyl-2-pyrrolidone	872-50-4
52	1·2·3-三氯丙烷 1,2,3-trichloropropane	96-18-4
53	鄰苯二甲酸二 C6-8支鏈 烷基酯 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6
54	鉻酸鉻 Dichromium tris(chromate)	24613-89-6
55	氫氧化鉻酸鋅鉀 Potassium hydroxyoctaoxodizincatedi-chromate	11103-86-9
56	C.I.顏料黃 36 Pentazinc chromate octahydroxide	49663-84-5
57	甲醛和苯胺聚合物 Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4

No.2, Technology Rd. V, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.

Tel: 886-3-5780333 Fax: 886-3-5783000 Web: www.issi.com

No.	Substance Name	CAS No.
58	鄰苯二甲酸二甲氧乙酯 Bis(2-methoxyethyl) phthalate	117-82-8
59	2-Methoxyaniline; o-Anisidine	90-04-0
60	鄰甲氧基苯胺 4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9
61	1,2-二氯乙烷 1,2-Dichloroethane	107-06-2
62	二甘醇二甲醚 Bis(2-methoxyethyl) ether	111-96-6
63	砷酸 Arsenic acid	7778-39-4
64	砷酸鈣 Calcium arsenate	7778-44-1
65	砷酸鉛 Trilead diarsenate	3687-31-8
66	N,N-二甲基乙醯胺 N,N-dimethylacetamide (DMAC)	127-19-5
67	4,4'-二氨基-2,2'-二氯二苯甲烷, 2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4
68	酚酞 Phenolphthalein	77-09-8
69	疊氮化鉛 Lead azide Lead diazide	13424-46-9
70	收斂酸鉛 Lead styphnate	15245-44-0
71	苦味酸鉛 Lead dipicrate	6477-64-1
72	三甘醇二甲醚 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
73	乙二醇二甲醚 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4
74	α,α-二[(二甲氨基)苯基]-4-甲氨基苯甲醇 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1
75	4'-二(N,N-二甲氨基)二苯甲酮 4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8
76	結晶紫 [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9
77	鹼性藍 26; 維多利亞藍 B [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
78	三氧化二硼 (無水硼酸) Diboron trioxide	1303-86-2
79	氨基甲醛 Formamide	75-12-7
80	甲基磺酸鉛 Lead(II) bis(methanesulfonate)	17570-76-2
81	N,N,N',N'-四甲基-4,4'-二氨基二苯甲烷 N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
82	1,3,5-三縮水甘油-S-三嗪三酮 TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	2451-62-9
83	A,A-二[4-(二甲氨基)苯基]-4-苯基氨基-1-萘甲醇 α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
84	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) 異氰脲酸 B-三縮水甘油酯	59653-74-6
85	十溴聯苯醚 Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5
86	全氟十三酸 Pentacosafuorotridecanoic acid	72629-94-8
87	全氟十二烷酸 Tricosafuorododecanoic acid	307-55-1
88	全氟十一烷酸 Henicosafuoroundecanoic acid	2058-94-8
89	全氟代十四酸 Heptacosafuorotetradecanoic acid	376-06-7
90	辛基酚聚醚-9, 包括界定明確的物質以及 UVCB 物質、聚合物和同系物 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	-

No.2, Technology Rd. V, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.

Tel: 886-3-5780333 Fax: 886-3-5783000 Web: www.issi.com

No.	Substance Name	CAS No.
91	分支或線性的壬基酚，含有線性或分支、共價綁定苯酚的9個碳烷基鏈的物質，包括 UVCB 物質以及任何含有獨立或組合的界定明確的同分異構體的物質 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	偶氮二甲醯胺 Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
93	順環己烷-1,2-二羧酸酐 Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)	85-42-7
94	甲基六氫苯酐、4-甲基六氫苯酐、甲基六氫化鄰苯二甲酸酐、3-甲基六氫苯二甲酸酐 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	甲氧基乙酸 Methoxy acetic acid	625-45-6
96	1,2-苯二羧二戊酯 (支鏈和直鏈) 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
97	鄰苯二甲酸二異戊酯 Diisopentylphthalate (DIPP)	605-50-5
98	鄰苯二甲酸正戊基異戊基酯 N-pentyl-isopentylphthalate	-
99	乙二醇二乙醚 1,2-Diethoxyethane	629-14-1
100	N,N-二甲基甲醯胺 N,N-dimethylformamide; dimethyl formamide	68-12-2
101	二丁基錫 Dibutyltin dichloride (DBT)	683-18-1
102	城式乙酸鉛 Acetic acid, lead salt, basic	51404-69-4
103	城式碳酸鉛 Basic lead carbonate (trilead bis(carbonate)dihydroxide)	1319-46-6
104	城式硫酸鉛 Lead oxide sulfate (basic lead sulfate)	12036-76-9
105	二鹽基鄰苯二甲酸鉛[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)	69011-06-9
106	雙(十八酸基)二氧代三鉛 Dioxobis(stearato)trilead	12578-12-0
107	C16-18-脂肪酸鉛鹽 Fatty acids, C16-18, lead salts	91031-62-8
108	氟硼酸鉛 Lead bis(tetrafluoroborate)	13814-96-5
109	氨基氰鉛鹽 Lead cyanamidate	20837-86-9
110	硝酸鉛 Lead dinitrate	10099-74-8
111	氧化鉛 Lead oxide (lead monoxide)	1317-36-8
112	四氧化三鉛 Lead tetroxide (orange lead)	1314-41-6
113	鈦酸鉛 Lead titanium trioxide	12060-00-3
114	鈦酸鉛鋯 Lead Titanium Zirconium Oxide	12626-81-2
115	氧化鉛與硫酸鉛的複合物 Pentalead tetraoxide sulphate	12065-90-6
116	顏料黃41 Pyrochlore, antimony lead yellow	8012-00-8
117	摻雜鉛的矽酸鋇 Silicic acid, barium salt, lead-doped	68784-75-8
118	矽酸鉛 Silicic acid, lead salt	11120-22-2
119	亞硫酸鉛 (II) Sulfurous acid, lead salt, dibasic	62229-08-7
120	四乙基鉛 Tetraethyllead	78-00-2
121	三城式硫酸鉛 Tetrilead trioxide sulphate	12202-17-4
122	磷酸氧化鉛 Trilead dioxide phosphonate	12141-20-7

No.2, Technology Rd. V, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.

Tel: 886-3-5780333 Fax: 886-3-5783000 Web: www.issi.com

No.	Substance Name	CAS No.
123	呋喃 Furan	110-00-9
124	環氧丙烷 Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9
125	硫酸二乙酯 Diethyl sulphate	64-67-5
126	硫酸二甲酯 Dimethyl sulphate	77-78-1
127	3-乙基-2-甲基-2-(3-甲基丁基)噁唑烷 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2
128	地樂酚 Dinoseb	88-85-7
129	4,4'-二氨基-3,3'-二甲基二苯甲烷 4,4'-methylenedi-o-toluidine	838-88-0
130	4,4'-二氨基二苯醚 4,4'-oxydianiline and its salts	101-80-4
131	4-胺基偶氮苯 4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3
132	2,4-二氨基甲苯 4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7
133	6-甲氧基-間-甲苯胺 甲苯胺 6-methoxy-m-toluidine (p-cresidine)	120-71-8
134	4-胺基聯苯 Biphenyl-4-ylamine	92-67-1
135	鄰胺基偶氮甲苯 o-aminoazotoluene	97-56-3
136	鄰甲基苯胺 o-Toluidine; 2-Aminotoluene	95-53-4
137	N-甲基乙酰胺 N-methylacetamide	79-16-3
138	溴代正丙烷 1-bromopropane; n-propyl bromide	106-94-5
139	鎘 Cadmium	7440-43-9
140	氧化鎘 Cadmium oxide	1306-19-0
141	鄰苯二甲酸二戊酯 Dipentyl phthalate (DPP)	131-18-0
142	分支或線性的乙氧化壬基酚，包括含有9個碳烷基鏈的所有獨立的同分異構體和所有含有線性或分支9個碳烷基鏈的 UVCB 物質 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	全氟辛酸銨 Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
144	全氟辛酸 Pentadecafluorooctanoic acid (PFOA)	335-67-1
145	硫化鎘 Cadmium sulphide	215-147-8
146	鄰苯二甲酸二己酯 Dihexyl phthalate	201-559-5
147	直接紅28 Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4
148	直接黑38 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
149	亞乙基硫脲 Imidazolidine-2-thione; 2-imidazoline-2-thiol	202-506-9
150	醋酸鉛 Lead di (acetate)	206-104-4
151	磷酸三(二甲苯)酯 Trixylyl phosphate	246-677-8

No.2, Technology Rd. V, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C.

Tel: 886-3-5780333 Fax: 886-3-5783000 Web: www.issi.com