



Jan.11<sup>th</sup>, 2013

## **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 138 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.

---

Tel: 886-3-5780333 Fax: 886-3-5783000 Web: [www.issi.com](http://www.issi.com)

Appendix: Complying with the 138 SVHC (substance of very high concern) of the Regulation (EC) No 1907/2006 (REACH)

Revision: 19<sup>th</sup> Dec. 2012

No.	Substance Name	CAS No.
1	三乙基磷酸酯 Triethyl arsenate	15606-95-8
2	蔥 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	蔥油 Anthracene oil	90640-80-5
17	蔥油·蔥糊·輕油 Anthracene oil, anthracene paste, distn. Lights*	91995-17-4
18	蔥油·蔥糊·蔥餾分離液 Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
19	蔥油·含蔥量少 Anthracene oil, anthracene-low	90640-82-7
20	蔥油·蔥糊 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	矽酸鋁氧化鈷·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](http://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	鉻酸鋇 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](http://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	酞酐 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	$\alpha, \alpha$ -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 $\alpha, \alpha$ -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
84	異氰脲酸B -三縮水甘油酯 $\beta$ -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
85	Bis(pentabromophenyl) ether (DecaBDE)十溴聯苯醚	1163-19-5
86	Pentacosafuorotridecanoic acid 全氟十三酸	72629-94-8
87	Tricosafuorododecanoic acid 全氟十二烷酸	307-55-1

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](http://www.issi.com)

No.	Substance Name	CAS No.
88	Henicosfluoroundecanoic acid 全氟十一烷酸	2058-94-8
89	Heptacosfluorotetradecanoic acid 全氟代十四酸	376-06-7
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues 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	-
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 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	-
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))偶氮二甲醯胺	123-77-3
93	Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride - HHPA)順環己烷-1,2-二羧酸酐	85-42-7
94	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride 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	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
95	Methoxy acetic acid 甲氧基乙酸	625-45-6
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear1 · 2-苯二羧二戊酯 (支鏈和直鏈)	84777-06-0
97	Diisopentylphthalate (DIPP)鄰苯二甲酸二異戊酯	605-50-5
98	N-pentyl-isopentylphthalate 鄰苯二甲酸正戊基異戊基酯	-
99	1,2-Diethoxyethane 乙二醇二乙醚	629-14-1
100	N,N-dimethylformamide; dimethyl formamide N,N-二甲基甲醯胺	68-12-2
101	Dibutyltin dichloride (DBT)二丁基錫	683-18-1
102	Acetic acid, lead salt, basic 城式乙酸鉛	51404-69-4
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)城式碳酸鉛	1319-46-6
104	Lead oxide sulfate (basic lead sulfate)城式硫酸鉛	12036-76-9
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)二鹽基鄰苯二甲酸鉛	69011-06-9
106	Dioxobis(stearato)trilead 雙(十八酸基)二氧代三鉛	12578-12-0
107	Fatty acids, C16-18, lead saltsC16-18-脂肪酸鉛鹽	91031-62-8
108	Lead bis(tetrafluoroborate)氟硼酸鉛	13814-96-5
109	Lead cyanamate 氨基氰鉛鹽	20837-86-9
110	Lead dinitrate 硝酸鉛	10099-74-8
111	Lead oxide (lead monoxide)氧化鉛	1317-36-8
112	Lead tetroxide (orange lead)四氧化三鉛	1314-41-6
113	Lead titanium trioxide 鈦酸鉛	12060-00-3
114	Lead Titanium Zirconium Oxide 鈦酸鉛鋅	12626-81-2
115	Pentalead tetraoxide sulphate 氧化鉛與硫酸鉛的複合物	12065-90-6

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](http://www.issi.com)

No.	Substance Name	CAS No.
116	Pyrochlore, antimony lead yellow 顏料黃 41	8012-00-8
117	Silicic acid, barium salt, lead-doped 摻雜鉛的矽酸鋇	68784-75-8
118	Silicic acid, lead salt 矽酸鉛	11120-22-2
119	Sulfurous acid, lead salt, dibasic 亞硫酸鉛 ( II )	62229-08-7
120	Tetraethyllead 四乙基鉛	78-00-2
121	Tetralead trioxide sulphate 三城式硫酸鉛	12202-17-4
122	Trilead dioxide phosphonate 磷酸氧化鉛	12141-20-7
123	Furan 呋喃	110-00-9
124	Propylene oxide; 1,2-epoxypropane; methyloxirane 環氧丙烷	75-56-9
125	Diethyl sulphate 硫酸二乙酯	64-67-5
126	Dimethyl sulphate 硫酸二甲酯	77-78-1
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine 3-乙基-2-甲基-2-(3-甲基丁基)噁唑烷	143860-04-2
128	Dinoseb 地樂酚	88-85-7
129	4,4'-methylenedi-o-toluidine 4,4'-二氨基-3,3'-二甲基二苯甲烷	838-88-0
130	4,4'-oxydianiline and its salts 4,4'-二氨基二苯醚	101-80-4
131	4-Aminoazobenzene; 4-Phenylazoaniline 4-胺基偶氮苯	60-09-3
132	4-methyl-m-phenylenediamine (2,4-toluene-diamine) 2,4-二氨基甲苯	95-80-7
133	6-methoxy-m-toluidine (p-cresidine) 2-甲氧基-5-甲基苯胺	120-71-8
134	Biphenyl-4-ylamine 4-氨基聯苯	92-67-1
135	o-aminoazotoluene 鄰氨基偶氮甲苯	97-56-3
136	o-Toluidine; 2-Aminotoluene 鄰甲基苯胺	95-53-4
137	N-methylacetamide N-甲基乙酰胺	79-16-3
138	1-bromopropane; n-propyl bromide 溴代正丙烷	106-94-5

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](http://www.issi.com)