

1380 Presidential Drive, Suite 100  
Richardson, TX 75081  
214-466-6690

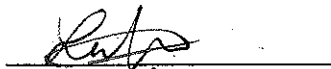
## REACH Certificate of Conformity

Re: BeagleBone Black Evaluation Module – BB-BBLK-000

Date: 4/11/13

This letter is to certify that the above product is in compliance with the REACH regulation 1907/2006/EC Substances of the Very High Concern (SVHC), and does not contain any of the known 53 substances in the amount > 0.1 % weight by weight. 100% of the products sold and shipped by Circuitco are in full accordance with the specifications applicable thereto. This certificate applies specifically to the product listed above.

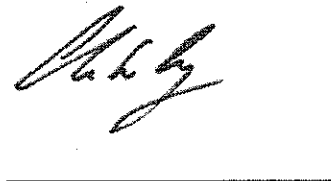
Verified by:



Yogesh Patel

Materials / Purchasing Manager

Certified by:



Clint Cooley

President

Circuitco Electronics



ISO 9001:2000



| Mfr       | Mfr P/N             | Vendor affected by SVHC | Products affected by SVHC                           | Remarks & link to web-site  |
|-----------|---------------------|-------------------------|---|---|
| NXP       | TDA19988BHN/C1,551  | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.nxp.com/about/corporate-social-responsibility/environment/concern.html">http://www.nxp.com/about/corporate-social-responsibility/environment/concern.html</a>   |
| SMSC      | LAN8710A-EZC-TR     | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.smsc.com/Support/RoHS-Green_and_Package_Information/REACH">http://www.smsc.com/Support/RoHS-Green_and_Package_Information/REACH</a>   |
| TI        | TPD45012DRYR        | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |
| TI        | TL5209DR            | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |
| TI        | TPS2051BDGNNR       | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |
| TI        | SN74LVC1G74DCTR     | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |
| TI        | SN74LVC1G06DCKR     | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |
| Cornell   | AVE107M06D16T-F     | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.cde.com/environmental/reach-legislation/">http://www.cde.com/environmental/reach-legislation/</a>   |
| NXP       | IP4283CZ10-TT,118   | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.nxp.com/about/corporate-social-responsibility/environment/concern.html">http://www.nxp.com/about/corporate-social-responsibility/environment/concern.html</a>   |
| NIC       | NRC04F2803TRF       | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.niccomp.com/company/certifications.asp">http://www.niccomp.com/company/certifications.asp</a>   |
| FCI       | 87520-0010BLF       | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://portal.fciconnect.com/portal/page/portal/fciconnect/rohs?s=overview">http://portal.fciconnect.com/portal/page/portal/fciconnect/rohs?s=overview</a>   |
| TE        | RXEF010             | Y                       | Some products contain SVHC over threshold.          | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TE_CONNECTIVITY_REACH_Position.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TE_CONNECTIVITY_REACH_Position.pdf</a>                                     |
| LITEON    | LTST-C191TBKT       | N                       | Products do not contain SVHCs above the threshold.  |   |
| TDK       | C1005X5R0J105K      | Y                       | 17 parts are affected, we got the complete list     | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf</a>                           |
| TDK       | C2012Y5V1A106Z      | Y                       | 17 parts are affected, we got the complete list     | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf</a>                           |
| Micron    | MTFC2GMVEA-0M WT    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.micron.com/products/support/faqs">http://www.micron.com/products/support/faqs</a>   |
| Micron    | MT41K256M16HA-125:E | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.micron.com/products/support/faqs">http://www.micron.com/products/support/faqs</a>   |
| CTS       | 73L3R10J            | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.ctscorp.com/governance/conflictmineralspolicy.htm">http://www.ctscorp.com/governance/conflictmineralspolicy.htm</a>   |
| TI        | TPS65217CRSLR       | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |
| TDK       | C1005X5R0J225K      | Y                       | 17 parts are affected, we got the complete list     | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf</a>                           |
| Murata    | GRM115R71H471KA01D  | N                       | Products do not contain SVHCs above the threshold.. | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/MURATA_reach.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/MURATA_reach.pdf</a>   |
| TDK       | C1005X5R0J104K      | Y                       | 17 parts are affected, we got the complete list     | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf</a>                           |
| TDK       | C1005COG1H180J      | Y                       | 17 parts are affected, we got the complete list     | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf</a>                           |
| Kemet     | CC0402KRX7R7BB102   | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/KEMET_REACH_SVHC_Tantalum_and_Ceramic_Capacitors.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/KEMET_REACH_SVHC_Tantalum_and_Ceramic_Capacitors.pdf</a> |
| TDK       | C1005COG1H300J      | Y                       | 17 parts are affected, we got the complete list     | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/TKD_LAMBDA_reach_position_statement.pdf</a>                           |
| NXP       | RB751V40,115        | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.nxp.com/about/corporate-social-responsibility/environment/concern.html">http://www.nxp.com/about/corporate-social-responsibility/environment/concern.html</a>   |
| C&K       | KMR231GLFS          | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/C_K_REACH-20110704_de-en.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/C_K_REACH-20110704_de-en.pdf</a>   |
| Murata    | LQM2HPN2R2MG0L      | N                       | Products do not contain SVHCs above the threshold.. | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/MURATA_reach.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/MURATA_reach.pdf</a>   |
| FCI       | 10118241-001RLF     | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://portal.fciconnect.com/portal/page/portal/fciconnect/rohs?s=overview">http://portal.fciconnect.com/portal/page/portal/fciconnect/rohs?s=overview</a>   |
| Stackpol  | RMCF0402FT4K75      | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.seielect.com/certs/default.asp">http://www.seielect.com/certs/default.asp</a>   |
| SEI       | RC0402FR-0712K1L    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.seielect.com/certs/default.asp">http://www.seielect.com/certs/default.asp</a>   |
| Vishay    | RC0402FR-071K5L     | Y                       | Some products contain SVHC over threshold.          | <a href="http://www.vishay.com/how/leadfree/#reach">http://www.vishay.com/how/leadfree/#reach</a>   |
| Panasonic | ERJ-2GEJ471X        | N                       | Some products contain SVHC over threshold.          | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/REACH_Customer_Letter_110824_Panasonic.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/REACH_Customer_Letter_110824_Panasonic.pdf</a>                     |
| Stackpol  | RMCF0402FT100K      | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.seielect.com/certs/default.asp">http://www.seielect.com/certs/default.asp</a>   |
| SEI       | RC0402JR-07100RL    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.seielect.com/certs/default.asp">http://www.seielect.com/certs/default.asp</a>   |
| NIC       | RC0402FR-0710RL     | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.niccomp.com/company/certifications.asp">http://www.niccomp.com/company/certifications.asp</a>   |
| Vishay    | RC0402JR-070RL      | Y                       | Some products contain SVHC over threshold.          | <a href="http://www.vishay.com/how/leadfree/#reach">http://www.vishay.com/how/leadfree/#reach</a>   |
| Rohm      | MCR01M2PJ103        | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.rohm.com/web/global/rohs-compliance-information">http://www.rohm.com/web/global/rohs-compliance-information</a>   |
| Stackpol  | RMCF0402FT1M00      | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.seielect.com/certs/default.asp">http://www.seielect.com/certs/default.asp</a>   |
| NIC       | RC0402FR-0749R9L    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.niccomp.com/company/certifications.asp">http://www.niccomp.com/company/certifications.asp</a>   |
| SEI       | RC0402JR-07820RL    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.seielect.com/certs/default.asp">http://www.seielect.com/certs/default.asp</a>   |
| NIC       | RC0402FR-07240RL    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.niccomp.com/company/certifications.asp">http://www.niccomp.com/company/certifications.asp</a>   |
| NIC       | RC0402FR-07470KL    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.niccomp.com/company/certifications.asp">http://www.niccomp.com/company/certifications.asp</a>   |
| NIC       | RC0402FR-0727KL     | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.niccomp.com/company/certifications.asp">http://www.niccomp.com/company/certifications.asp</a>   |
| Panasonic | RC0402JR-0733RL     | N                       | Some products contain SVHC over threshold.          | <a href="http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/REACH_Customer_Letter_110824_Panasonic.pdf">http://www.arroweurope.com/fileadmin/user_upload/download/Arrow%20Brochures/Environmental%20Compliance/REACH_Customer_Letter_110824_Panasonic.pdf</a>                     |
| TI        | SN74LVC2G241DCUR    | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |
| Microchip | 24LC32AT-I/OT       | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://www.microchip.com/stellent/idcplg?IdcService=SS_GET_PAGE&amp;nodeId=2001&amp;redirects=environment">http://www.microchip.com/stellent/idcplg?IdcService=SS_GET_PAGE&amp;nodeId=2001&amp;redirects=environment</a>   |
| TI        | XAM3359AZCZ100      | N                       | Products do not contain SVHCs above the threshold.  | <a href="http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067">http://focus.ti.com/quality/docs/gencontent.tsp?templateId=5909&amp;navigationId=11808&amp;contentId=5067</a>   |

| DKC:            | ORIG PN              | CUSTOMER PN: | DK DESCRIPTION:                  | QTD MFG PN:          | QTD MFG:                   | ECCN: | HTSUS:       | LEAD:     | ROHS:     | REACH STATUS:    | REACH DATE: | CTRY ORIG:      |
|-----------------|----------------------|--------------|----------------------------------|----------------------|----------------------------|-------|--------------|-----------|-----------|------------------|-------------|-----------------|
| SCP310-ND       | SCP310-ND            | 10035        | BAG STATIC METAL-IN 3X5"         | 10035                | 3M                         | EAR99 | 3923.29.0000 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | USA             |
| 587-2476-2-ND   | LMK105B7223KV-F      | 123-0001042  | CAP CER 0.022UF 10V 10% X7R 0402 | LMK105B7223KV-F      | TAIYO YUDEN                | EAR99 | 8532.24.0020 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 9-Nov JAPAN     |
| 587-1207-2-ND   | UMK105CG470JV-F      | 123-0001115  | CAP CER 47PF 50V 5% NP0 0402     | UMK105CG470JV-F      | TAIYO YUDEN                | EAR99 | 8532.24.0020 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 9-Nov CHINA     |
| 240-2384-2-ND   | LI0805H151R-10       | 126-0001427  | FERRITE 800MA 150 OHM 0805 SMD   | LI0805H151R-10       | LAIRD-SIGNAL INTEGRITY     | EAR99 | 8504.50.8000 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 11-Aug TAIWAN   |
| DMC564040RTR-ND | DMC564040R           | 132-0002279  | TRANS NPN/NPN V/RES 50V SMINI6   | DMC564040R           | PANASONIC ELECTRONIC COMP. | EAR99 | 8541.21.0095 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | MALAYSIA        |
| 887-1090-2-NDL  | 7A-24.000MAAJ-T      | 145-0001357  | CRYSTAL 24.000 MHZ 18PF SMD      | 7A-24.000MAAJ-T      | TXC CORPORATION            | EAR99 | 8541.60.0060 | LEAD BYEX | ROHS COMP |                  |             | CHINA           |
| 535-9108-2-ND   | ABM3-25.000MHZ-B2-T  | 145-0001360  | CRYSTAL 25.000MHZ 18PF SMD       | ABM3-25.000MHZ-B2-T  | ABRACON CORPORATION        | EAR99 | 8541.60.0060 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 12-Jun TAIWAN   |
| 887-1092-2-NDL  | 7A-25.000MAAJ-T      | 145-0001361  | CRYSTAL 25.000 MHZ 18PF SMD      | 7A-25.000MAAJ-T      | TXC CORPORATION            | EAR99 | 8541.60.0060 | LEAD BYEX | ROHS COMP |                  |             | CHINA           |
| 300-8738-2-ND   | CM200C-32.768KAZF-UT | 145-0001366  | CRYSTAL 32.768KHZ 12.5PF SMD     | CM200C-32.768KAZF-UT | CITIZEN FINETECH MIYOTA    | EAR99 | 8541.60.0010 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 11-Oct CHINA    |
| 535-11729-2-NDL | ASDMB-24.576MHZ-LC-T | 146-0002628  | OSC MEMS 24.576 MHZ SMD          | ASDMB-24.576MHZ-LC-T | ABRACON CORPORATION        | EAR99 | 8541.60.0080 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 12-Jun THAILAND |
| H11671TR-ND     | UX60SC-MB-5ST(80)    | 158-0001279  | CONN RCPT USB MINI B R/A SMD     | UX60SC-MB-5ST(80)    | HIROSE ELECTRIC CO LTD     | EAR99 | 8536.69.4040 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 11-Sep CHINA    |
| 609-3263-ND     | 68000-406HLF         | 258-0001319  | CONN HEADER 6POS .100 STR TIN    | 68000-406HLF         | FCI                        | EAR99 | 8536.69.4040 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 11-Jun MEXICO   |
| CP-002A-NDL     | CP-002A-NDL          | 258-0001330  | CONN POWER JACK 2.1MM            | PJ-002A              | CUI INC                    | EAR99 | 8536.69.4040 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 10-Oct CHINA    |
| 535-11729-2-NDL | ASDMB-24.576MHZ-LC-T | 146-0002628  | OSC MEMS 24.576 MHZ SMD          | ASDMB-24.576MHZ-LC-T | ABRACON CORPORATION        | EAR99 | 8541.60.0080 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 12-Jun THAILAND |
| 495-4401-2-ND   | CT1206K25G           | 123-0001115  | VARISTOR 25VRMS 1206 SMD         | CT1206K25G           | EPCOS INC                  | EAR99 | 8533.40.4000 | LEAD FREE | ROHS COMP | REACH UNAFFECTED |             | 11-Oct CROATIA  |

10 January, 2013

**Certificate of Non-Use of REACH SVHC**  
**(Substances of Very High Concern)****REACH 高懸念物質(SVHC)不使用証明書**

We hereby certify that following product supplied to your company **do not** intentionally contain REACH Substances of Very High Concern (SVHC) exceeding 0.1% in each homogeneous material.

弊社は、貴社へ納入している下記対象製品において、REACH 規制の高懸念物質(SVHC)を均質材料毎に 0.1% を超えて含有していないことを証明いたします。

(1) Product: 対象製品 :

| Product Name | ALPS Product Number |
|--------------|---------------------|
| Connector    | SCHA5B0200          |

(2) List of Substances of Very High Concern (SVHC): 高懸念物質リスト(SVHC) :

|    | Substances 物質名  | CAS number | EC number      |
|----|---|------------|----------------|
| 1  | Anthracene アントラセン   | 120-12-7   | 204-371-1      |
| 2  | Diaminodiphenylmethane 4,4'-ジ'アミノジ'フェニルメタン  | 101-77-9   | 202-974-4      |
| 3  | Dibutyl phthalate(DBP) フタル酸ジ'ブチル  | 84-74-2    | 201-557-4      |
| 4  | Cobalt dichloride 二塩化コバルト   | 7646-79-9  | 231-589-4      |
| 5  | Diarsenic pentaoxide 五酸化二砒素   | 1303-28-2  | 215-116-9      |
| 6  | Diarsenic trioxide 三酸化二砒素   | 1327-53-3  | 215-481-4      |
| 7  | Sodium dichromate, dehydrate ニクロム酸ナトリウム   | 7789-12-0  | 234-190-3      |
| 8  | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) ムスクキシレン  | 81-15-2    | 201-329-4      |
| 9  | Bis (2-ethyl(hexyl)phthalate) (DEHP) フタル酸ジ' 2-エチルヘキシル   | 117-81-7   | 204-211-0      |
| 10 | Hexabromocyclododecane (HBCDD) ヘキサブ'ロモシクロド'デカン  | 25637-99-4 | 247-148-4      |
| 11 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) 短鎖塩素化パラフィン                                  | 85535-84-8 | 287-476-5      |
| 12 | Bis(tributyltin)oxide (TBTO) ビ'ス(トリブ'チルスズ') = オキシト'   | 56-35-9    | 200-268-0      |
| 13 | Lead hydrogen arsenate 酸性ヒ酸鉛  | 7784-40-9  | 232-064-2      |
| 14 | Triethyl arsenate ヒ酸トリエチル   | 15606-95-8 | 427-700-2      |
| 15 | Benzyl butyl phthalate(BBP) フタル酸ブ'チルベン'ジル   | 85-68-7    | 201-622-7      |
| 16 | 2, 4-Dinitrotoluene 2,4-ジ'ニトロトルエン   | 121-14-2   | 204-450-0      |
| 17 | Anthracene oil アントラセン油  | 90640-80-5 | 292-602-7      |
| 18 | Anthracene oil, Anthracene paste, distn, Lights.<br>アントラセン油, アントラセンペースト, アントラセン軽留分                      | 91995-17-4 | 295-278-5      |
| 19 | Anthracene oil, Anthracene paste, Anthracene fraction<br>アントラセン油, アントラセンペースト, アントラセン留分                  | 91995-15-2 | 295-275-9      |
| 20 | Anthracene oil, Anthracene paste, Anthracene-low<br>アントラセン油, アントラセンペースト, アントラセン低温留分                     | 90640-82-7 | 292-604-8      |
| 21 | Anthracene oil, Anthracene paste アントラセン油, アントラセンペースト  | 90640-81-6 | 292-603-2      |
| 22 | Diisobutyl phthalate ジ'イソブ'チルフタレート(DIBP)  | 84-69-5    | 201-553-2      |
| 23 | Aluminosilicate, Refractory ceramic fibres<br>アルミノシリケート, 耐火性セラミック繊維                                     | —          | (650-017-00-8) |
| 24 | Zirconia Aluminosilicate, Refractory ceramic fibres.<br>ジルコニアアルミノシリケート, 耐火性セラミック繊維                      | —          | (650-017-00-8) |
| 25 | Lead chromate クロム酸鉛   | 7758-97-6  | 231-846-0      |
| 26 | Lead chromate molybdate sulfatered red(C,I,pigment ,Red104)<br>硫酸モリブ'デン酸クロム酸鉛(モリブ'デン赤、C,I,ピグメントレッド' 104 | 12656-85-8 | 235-759-9      |

|    |  |                                      |                        |
|----|--|--------------------------------------|------------------------|
| 27 | Lead sulfochromate yellow(C,I,pigment yellow 34)<br>黄鉛(C.I.ピグメントイエロー 34)                 | 1344-37-2                            | 215-693-7              |
| 28 | Tris(2-chloroethyl)phosphate リン酸トリス(2-クロエチル)   | 115-96-8                             | 204-118-5              |
| 29 | Coal tar pitch,High temperature 高温コールタールピッチ  | 65996-93-2                           | 266-028-2              |
| 30 | Acrylamide アクリルアミド   | 79-06-1                              | 201-173-7              |
| 31 | Trichloroethylene トリクロロエチレン  | 79-01-6                              | 201-167-4              |
| 32 | Boric acid ホウ酸   | 10043-35-3<br>11113-50-1             | 233-139-2<br>234-343-4 |
| 33 | Disodium tetraborate,anhydrous 四ホウ酸ナトリウム   | 1330-43-4<br>12179-04-3<br>1303-96-4 | 215-540-4              |
| 34 | Tetraboron disodium heptaoxide,hydrate   | 12267-73-1                           | 235-541-3              |
| 35 | Sodium chromate クロム酸ナトリウム  | 7775-11-3                            | 231-889-5              |
| 36 | Potassium chromate クロム酸カリウム  | 7789-00-6                            | 232-140-5              |
| 37 | Ammonium dichromate ニクロム酸アンモニウム(重クロム酸アンモニウム)   | 7789-09-5                            | 232-143-1              |
| 38 | Potassium dichromate ニクロム酸ニカリウム(重クロム酸カリウム)   | 7778-50-9                            | 231-906-6              |
| 39 | Cobalt(II)sulphate 硫酸コバルト(II)  | 10124-43-3                           | 233-334-2              |
| 40 | Cobalt(II)dinitrate 硝酸コバルト(II)   | 10141-05-6                           | 233-402-1              |
| 41 | Cobalt(II)carbonate 炭酸コバルト(II)   | 513-79-1                             | 208-169-4              |
| 42 | Cobalt(II)diacetate 酢酸コバルト(II)   | 71-48-7                              | 200-755-8              |
| 43 | 2-Methoxyethanol 2-メトキシエタノール   | 109-86-4                             | 203-713-7              |
| 44 | 2-Ethoxyethanol 2-エトキシエタノール  | 110-80-5                             | 203-804-1              |
| 45 | Chromium trioxide 無水クロム(VI)酸   | 1333-82-0                            | 215-607-8              |
| 46 | Chromic acid クロム酸  | 7738-94-5<br>13530-68-2              | 231-801-5<br>236-881-5 |
| 47 | Cobalt dichloride  | 7646-79-9                            | 231-589-4              |
| 48 | 2-ethoxyethyl acetate  | 111-15-9                             | 203-839-2              |
| 49 | Strontium chromate   | 7789-06-2                            | 232-142-6              |
| 50 | 1,2-benzenedicarboxylic acid,di-C7-11-branched and linearalkylesters                     | 68515-42-4                           | 271-084-6              |
| 51 | Hydrazine  | 7803-57-8/<br>302-01-2               | 206-114-9              |
| 52 | 1-methyl-2-pyrrolidone   | 872-50-4                             | 212-828-1              |
| 53 | 1,2,3-trichloropropane   | 96-18-4                              | 202-486-1              |
| 54 | 1,2-benzenedicarboxylic acid,di-C6-8-branchedalkyl esters, C7-rich.                      | 71888-89-6                           | 276-158-1              |
| 55 | Dichromium tris(chromate)  | 24613-89-6                           | 246-356-2              |
| 56 | Potassium hydroxyoctaoxodizincatedi-chromate クロム酸ヒドロキシ亜鉛カリウム                             | 11103-86-9                           | 234-329-8              |
| 57 | Pentainc chromate octahydroxide  | 49663-84-5                           | 256-418-0              |
| 58 | Aluminosilicate Refractory ceramic Fibers(RCF)   | —                                    | —                      |
| 59 | Zirconia Aluminosilicate Refractory Ceramic Fibers(Zr-RCF)                               | —                                    | —                      |
| 60 | Formaldehyde,oligomeric reaction products with aniline (technical MDA) アニリンとホルムアルデヒドの重合物 | 25214-70-4                           | 500-036-1              |
| 61 | Bis(2-methoxyethyl)phthalate ビス(2-メトキシエチル)フタレート  | 117-82-8                             | 204-212-6              |
| 62 | 2-Methoxyaniline,o-Anisidine 2-メトキシアニリン  | 90-04-0                              | 201-963-1              |
| 63 | 4-(1.1.3.3-tetramethylbutyl)phenol,(4-tert-Octylphenol)<br>4-(1.1.3.3-テトラメチルブチル)フェノール    | 140-66-9                             | 205-426-2              |
| 64 | 1.2-Dichloroethan 1.2-ジクロロエタン  | 107-06-2                             | 203-458-1              |
| 65 | Bis(2-methoxyethyl)ether シエチレングリコールジメチルエーテル  | 111-96-6                             | 203-924-4              |
| 66 | Arsenic acid ヒ酸  | 7778-39-4                            | 231-901-9              |
| 67 | Calcium arsenate ヒ酸カルシウム   | 7778-44-1                            | 231-904-5              |
| 68 | Trilead diarsenate ヒ酸鉛(II)   | 3687-31-8                            | 222-979-5              |
| 69 | N.N-dimethylacetamide(DMAC) N.N.-ジメチルアセトアミド  | 127-19-5                             | 204-826-4              |

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|----|---|--|--|
| 70 | 2,2'-dichloro-4,4'-methylenedianiline(MOCA)<br>2,2'-ジクロロ-4,4'-メチレンジアニリン   | 101-14-4   | 202-918-9  |
| 71 | Phenolphthalein フェノールフタレイン  | 77-09-8  | 201-004-7  |
| 72 | Lead azide / Lead diazide アジ化鉛(Ⅱ)   | 13424-46-9   | 236-542-1  |
| 73 | Lead styphnate<br>2,4,6-トリニトロ-1,3-ヘンゼンジオール鉛(Ⅱ)塩(トリニトロソルシン鉛)   | 15245-44-0   | 239-290-0  |
| 74 | Lead dipicrate ニピクリン酸鉛,ヒスビクリン酸鉛(Ⅱ),鉛(Ⅱ)ヒス(2,4,6-トリニトロヘンゼン-1-オラート)   | 6477-64-1  | 229-335-2  |
| 75 | 1,2-bis(2-methoxyethoxy)ethane(TEGDME; triglyme)<br>2,5,8,11-テトラオキシデカン  | 112-49-2   | 203-977-3  |
| 76 | 1,2-dimethoxyethane;ethylene glycol dimethyl ether(EGDME)<br>エチレングリコールジメチルエーテル  | 110-71-4   | 203-794-9  |
| 77 | Diboron trioxide 三酸化二ボロ素  | 1303-86-2  | 215-125-8  |
| 78 | Formamide ホルムアミド  | 75-12-7  | 200-842-0  |
| 79 | Lead(Ⅱ)bis(methanesulfonate) メタンスルホン酸鉛(Ⅱ)   | 17570-76-2   | 401-750-5  |
| 80 | TGIC(1,3,5, tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) 1,3,5-トリス(2,3-エポキシプロピル)-1,3,5-トリアジン-2,4,6(1H,3H,5H)-トリオン  | 2451-62-9  | 219-514-3  |
| 81 | β-TGIC(1,3,5-tris[(2Sand2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione —   | 59653-74-6   | 423-400-0  |
| 82 | 4,4'-bis(dimethylamino)benzophenone(michler's sketone)<br>4,4'-ビス(ジメチルアミノ)ベンゾフェノン   | 90-94-8  | 202-027-5  |
| 83 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline(Michler's base)<br>4,4'-メチレンビス(N,N-ジメチルアニリン)  | 101-61-1   | 202-959-2  |
| 84 | [4-[4,4'-bis(dimethylamino)benzhydriylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride(C.I.Basic Violet 3)<br>C.I.ヘイシツクハイオレット 3   | 548-62-9   | 208-953-6  |
| 85 | [4-[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride(C.I. Basic Blue 26) C.I.ヘイシツク ブルー 26   | 2580-56-5  | 219-943-6  |
| 86 | α, α-Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol(C.I. Solvent Blue 4) C.I.ソルベント ブルー 4   | 6786-83-0  | 229-851-1  |
| 87 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol<br>4,4'-メチルアミノ-4'',4''-ビス(ジメチルアミノ)トリフェニルメタノール   | 561-41-1   | 209-218-2  |
| 88 | Bis(pentabromophenyl)ether(DecaBDE) デカブロモジフェニルエーテル  | 1163-19-5  | 214-604-9  |
| 89 | Pentacosafuorotridecanoic acid ヘンタコサフルオロトリデカン酸  | 72629-94-8   | 276-745-2  |
| 90 | Tricosafuorododecanoic acid トリコサフルオロドデカン酸   | 307-55-1   | 206-203-2  |
| 91 | Henicosafuoroundecanoic acid ヘニコサフルオロウンデカン酸   | 2058-94-8  | 218-165-4  |
| 92 | Heptacosafuorotetradecanoic acid ヘプタコサフルオロテトラデカン酸   | 376-06-7   | 206-803-4  |
| 93 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated-covering well-defined substances and UVCB substances polymers and homoloques<br>4-(1,1,3,3-テトラメチルブチル)フェノール, エトキシレート   | —  | —  |
| 94 | 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.<br>4-ノニルフェノール(炭素数9の直鎖および分岐のアルキルの全ての異性体の単独物、および混合物(UVCB)) | —  | —  |
| 95 | Diazene-1,2-dicarboxamide(C, C'-)アゾシカルボンアミド   | 123-77-3   | 204-650-8  |
| 96 | Hexahydro-2-benzofuran-1,3-dione(HHPA), cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-, 2-dicarboxylic Anhydride ヘキサヒドロフタル酸無水物  | 85-42-7<br>13149-00-3<br>14166-21-3                  | 201-604-9<br>236-086-3<br>238-009-9              |
| 97 | Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride<br>メチルヘキサヒドロ無水フタル酸, 4-メチルシクロヘキサ-1,2-カルボン酸無水物, メチルヘキサヒドロ無水フタル酸, メチルヘキサヒドロ無水フタル酸  | 25550-51-0<br>19438-60-9<br>48122-14-1<br>57110-29-9 | 247-094-1<br>243-072-0<br>256-356-4<br>260-566-1 |

|     |  |             |           |
|-----|--|-------------|-----------|
| 98  | Methoxy acetic acid メキシ酢酸  | 625-45-6    | 210-894-6 |
| 99  | 1, 2-Benzenedicarboxylic acid, dipentylester, branched and linear<br>1, 2-ベンゼンカルボ酸, 炭素数 7-11 の分岐及び直鎖アルキルエステ類 | 84777-06-0  | 284-032-2 |
| 100 | Diisopentylphthalate フタル酸ジイソペンチル   | 605-50-5    | 210-088-4 |
| 101 | N-pentyl-isopentylphthalate N-ペンチル-イソペンチルフタル酸  | 776297-69-9 | —         |
| 102 | 1, 2-Diethoxyethane 1, 2-ジエトキシエタン  | 629-14-1    | 211-076-1 |
| 103 | N, N-dimethylformamide;dimethyl formamide シメチルホルムアミド   | 68-12-2     | 200-679-5 |
| 104 | Dibutyltin dichloride (DBT) シブチルスズジクロライド   | 683-18-1    | 211-670-0 |
| 105 | Acetic acid, Lead salt, basic 塩基性酢酸鉛   | 51404-69-4  | 257-175-3 |
| 106 | Basic lead carbonate[trilead bis(carbonate)dihydroxide]<br>炭酸水酸化鉛(亜炭酸鉛)、水酸化炭酸鉛(II)                           | 1319-46-6   | 215-290-6 |
| 107 | Lead oxide sulfafate(basic lead sulfate) 塩基性硫酸鉛  | 12036-76-9  | 234-853-7 |
| 108 | [Phthalato(2-)]dioxotrilead(dibasic lead phthalate)<br>1, 2-ベンゼンジカルボキシラト(2-)]ジオキソ三鉛                          | 69011-06-9  | 273-688-5 |
| 109 | Dioxobis(stearato)trilead ジオキソビス(ステアリン酸)三鉛   | 12578-12-0  | 235-702-8 |
| 110 | Fatty acids, C16-18, lead salts 脂肪酸鉛塩(C16-18)  | 91031-62-8  | 292-966-7 |
| 111 | Lead bis(tetrafluoroborate) ホウフッ化鉛   | 13814-96-5  | 237-486-0 |
| 112 | Lead cyanamide シアナミド鉛  | 20837-86-9  | 244-073-9 |
| 113 | Lead dinitrate 硝酸鉛   | 10099-74-8  | 233-245-9 |
| 114 | Lead oxide(lead monoxide) 一酸化鉛   | 1317-36-8   | 215-267-0 |
| 115 | Lead tetroxide(orange lead) 四三酸化鉛  | 1314-41-6   | 215-235-6 |
| 116 | Lead titanium trioxide チタン酸鉛   | 12060-00-3  | 235-038-9 |
| 117 | Lead Titanium Zirconium oxide シルコン酸チタン酸鉛   | 12626-81-2  | 235-727-4 |
| 118 | Pentalead tetraoxide sulphate 塩基性硫酸鉛   | 12065-90-6  | 235-067-7 |
| 119 | Pyrochlore,antimony lead yellow ピグメントエロー-41  | 8012-00-8   | 232-382-1 |
| 120 | Silicic acid,barlum salt,lead-doped ケイ酸バリウム,鉛ドーパ   | 68784-75-8  | 272-271-5 |
| 121 | Silicic acid,lead salt ケイ酸と鉛の塩   | 11120-22-2  | 234-467-1 |
| 122 | Sulfurous acid,lead salt,dibasic 塩基性亜硫酸鉛   | 62229-08-7  | 263-467-1 |
| 123 | Tetraethyllead 四エチル鉛   | 78-00-2     | 201-075-4 |
| 124 | Tetralead trioxide sulphate 塩基性硫酸鉛;三塩基性硫酸鉛   | 12202-17-4  | 235-380-9 |
| 125 | Trilead dioxide phosphonate 二塩基性リン酸鉛   | 12141-20-7  | 235-252-2 |
| 126 | Furan フラン  | 110-00-9    | 203-727-3 |
| 127 | Propylene oxide;1,2-epoxypropane;methyloxirane 酸化プロピレン   | 75-56-9     | 200-879-2 |
| 128 | Diethyl sulphate 硫酸ジエチル  | 64-67-5     | 200-589-6 |
| 129 | Dimethyl sulphate 硫酸シメチル   | 77-78-1     | 201-058-1 |
| 130 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine<br>3-エチル-2-イソヘチル-2-メチル-1,3-オキサゾリジン                        | 143860-04-2 | 421-150-7 |
| 131 | Dinoseb シノセブ   | 88-85-7     | 201-861-7 |
| 132 | 4,4'-methylenedi-o-toluidine 4,4'-メチレンビス(2-メチルアニリン)  | 838-88-0    | 212-658-8 |
| 133 | 4,4'-oxydianiline and its salts 4,4'-ジアミノジフェニルエーテル   | 101-80-4    | 202-977-0 |
| 134 | 4-Aminoazobenzene;4-phenylazoaniline p-アミノアゾベンゼン   | 60-09-3     | 200-453-6 |
| 135 | 4-methyl-m-phenylenediamine(2,4-toluene-diamine)<br>2,4-ジアミノトルエン   | 95-80-7     | 202-453-1 |
| 136 | 6-methoxy-m-toluidine (p-cresidine) 6-メトキシ-mトルイジン  | 120-71-8    | 204-419-1 |
| 137 | Biphenyl-4-ylamine 4-アミノビフェニル  | 92-67-1     | 202-177-1 |
| 138 | o-aminoazotoluene 2-アミノ-5-アゾトルエン   | 97-56-3     | 202-591-2 |
| 139 | o-toluidine;2-Aminotoluene o-トルイジン   | 95-53-4     | 202-429-0 |
| 140 | N-methylacetamide N-メチルアセトアミド  | 79-16-3     | 201-182-6 |
| 141 | 1-bromopropane 1-ブロモプロパン;臭化 n-プロピル   | 106-94-5    | 203-445-0 |


- ・ For newly added 54 substances of Very High concern(SVHC)of REACH,we still under survey, and do not yet have information for some substances.

We consider that SVHC are not contained based on the obtained information up to now, such as MSDS,composition table and Non-Use certificate.

- ・ REACH 規制高懸念物質(SVHC)の新たな追加 54 物質については、現在も調査中で一部の物質ではまだ情報が得られていません。

これまで得られている情報の MSDS や成分表、及び不使用証明書などの知見から、明らかに含有はしていないと判断をしているものです。

Sincerely yours,



**Makoto Watanabe**

Manager, Engineering Administration Group.

Engineering Administration Department.

ALPS ELECTRIC CO.,LTD. Engineering Headquarters







## CERTIFICATE OF COMPLIANCE

**Company:** Major League Electronics

Address: 4235 Earnings Way  
New Albany, IN 47150

Contact person: Jeff England

Title: Quality Manager

E-mail: jengland@mlelectronics.com

Telephone: 812-944-7244

P/N: SSHS-123-D-02-GT-LF

This letter is to assure that the above-mentioned product(s) made from above-mentioned company **do not contain** any of the REACH Substances of Very High Concern (SVHC), as specified in the table below according to the Candidate list published by ECHA (European Chemical Agency).

| # | Substance Name               | CAS #      | SVHC<br>Published<br>Date |
|---|------------------------------|------------|---------------------------|
| 1 | Anthracene                   | 120-12-7   | 2008-10-28                |
| 2 | 4,4'- Diaminodiphenylmethane | 101-77-9   | 2008-10-28                |
| 3 | Dibutyl phthalate            | 84-74-2    | 2008-10-28                |
| 4 | Cobalt dichloride            | 7646-79-9  | 2008-10-28                |
| 5 | Diarsenic pentaoxide         | 1303-28-2  | 2008-10-28                |
| 6 | Diarsenic trioxide           | 1327-53-3  | 2008-10-28                |
| 7 | Sodium dichromate, dihydrate | 10588-01-9 | 2008-10-28                |

|    |  |            |            |
|----|--|------------|------------|
| 8  | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)                   | 81-15-2    | 2008-10-28 |
| 9  | Bis (2-ethyl(hexyl)phthalate) (DEHP)                                 | 117-81-7   | 2008-10-28 |
| 10 | Hexabromocyclododecane (HBCDD)                                       | 3194-55-6  | 2008-10-28 |
| 11 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)          | 85535-84-8 | 2008-10-28 |
| 12 | Bis(tributyltin) oxide,hexabutyldistannoxane                         | 56-35-9    | 2008-10-28 |
| 13 | Lead hydrogen arsenate   | 7784-40-9  | 2008-10-28 |
| 14 | Triethyl arsenate  | 15606-95-8 | 2008-10-28 |
| 15 | Benzyl butyl phthalate   | 85-68-7    | 2008-10-28 |
| 16 | 2,4-Dinitrotoluene   | 121-14-2   | 2010-1-13  |
| 17 | Anthracene oil   | 90640-80-5 | 2010-1-13  |
| 18 | Anthracene oil, anthracene paste                                     | 90640-81-6 | 2010-1-13  |
| 19 | Anthracene oil, anthracene paste, anthracene fraction                | 91995-15-2 | 2010-1-13  |
| 20 | Anthracene oil, anthracene paste,distn. lights                       | 91995-17-4 | 2010-1-13  |
| 21 | Anthracene oil, anthracene-low                                       | 90640-82-7 | 2010-1-13  |
| 22 | Diisobutyl phthalate   | 84-69-5    | 2010-1-13  |
| 23 | Lead chromate  | 7758-97-6  | 2010-1-13  |
| 24 | Lead chromate molybdate sulphate red (C.I. Pigment Red 104)          | 12656-85-8 | 2010-1-13  |
| 25 | Lead sulfochromate yellow (C.I. Pigment Yellow 34)                   | 1344-37-2  | 2010-1-13  |
| 26 | Pitch, coal tar, high temp.  | 65996-93-2 | 2010-1-13  |
| 27 | Tris(2-chloroethyl)phosphate   | 115-96-8   | 2010-1-13  |
| 28 | Acrylamide   | 79-06-1    | 2010-3-30  |
| 29 | Trichloroethylene  | 79-01-6    | 2010-6-18  |
| 30 | Boric acid   | 10043-35-3 | 2010-6-18  |
| 31 | Disodium tetraborate, anhydrous                                      | 1330-43-4  | 2010-6-18  |
| 32 | Tetraboron disodium heptaoxide, hydrate                              | 12267-73-1 | 2010-6-18  |
| 33 | Sodium chromate  | 7775-11-3  | 2010-6-18  |
| 34 | Potassium chromate   | 7789-00-6  | 2010-6-18  |
| 35 | Ammonium dichromate  | 7789-09-5  | 2010-6-18  |
| 36 | Potassium dichromate   | 7778-50-9  | 2010-6-18  |
| 37 | 2-Ethoxyethanol  | 110-80-5   | 2010-12-15 |
| 38 | 2-Methoxyethanol   | 109-86-4   | 2010-12-15 |
| 39 | Chromic acid   | 7738-94-5  | 2010-12-15 |
| 40 | Chromium trioxide  | 1333-82-0  | 2010-12-15 |
| 41 | Cobalt(II) carbonate   | 513-79-1   | 2010-12-15 |
| 42 | Cobalt(II) diacetate   | 71-48-7    | 2010-12-15 |
| 43 | Cobalt(II) dinitrate   | 10141-05-6 | 2010-12-15 |
| 44 | Cobalt(II) sulphate  | 10124-43-3 | 2010-12-15 |
| 45 | 1,2,3-Trichloropropane   | 96-18-4    | 2011-6-20  |
| 46 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich | 71888-89-6 | 2011-6-20  |

|    |   |                      |            |
|----|---|----------------------|------------|
| 47 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters   | 68515-42-4           | 2011-6-20  |
| 48 | 1-Methyl-2-pyrrolidone  | 872-50-4             | 2011-6-20  |
| 49 | 2-Ethoxyethyl acetate   | 111-15-9             | 2011-6-20  |
| 50 | Hydrazine   | 302-01-2 / 7803-57-8 | 2011-6-20  |
| 51 | Strontium chromate  | 7789-06-2            | 2011-6-20  |
| 52 | Dichromium tris(chromate)   | 24613-89-6           | 2011-12-19 |
| 53 | Potassium hydroxyoctaoxodizincatedi-chromate  | 11103-86-9           | 2011-12-19 |
| 54 | Pentazinc chromate octahydroxide  | 49663-84-5           | 2011-12-19 |
| 55 | Aluminosilicate Refractory Ceramic Fibres (RCF)   | -                    | 2011-12-19 |
| 56 | Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)   | -                    | 2011-12-19 |
| 57 | Formaldehyde, oligomeric reaction products with aniline (technical MDA)   | 25214-70-4           | 2011-12-19 |
| 58 | Bis(2-methoxyethyl) phthalate   | 117-82-8             | 2011-12-19 |
| 59 | 2-Methoxyaniline; o-Anisidine   | 90-04-0              | 2011-12-19 |
| 60 | 4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)  | 140-66-9             | 2011-12-19 |
| 61 | 1,2-Dichloroethane  | 107-06-2             | 2011-12-19 |
| 62 | Bis(2-methoxyethyl) ether   | 111-96-6             | 2011-12-19 |
| 63 | Arsenic acid  | 7778-39-4            | 2011-12-19 |
| 64 | Calcium arsenate  | 7778-44-1            | 2011-12-19 |
| 65 | Trilead diarsenate  | 3687-31-8            | 2011-12-19 |
| 66 | N,N-dimethylacetamide (DMAC)  | 127-19-5             | 2011-12-19 |
| 67 | 2,2'-dichloro-4,4'-methylenedianiline (MOCA)  | 101-14-4             | 2011-12-19 |
| 68 | Phenolphthalein   | 77-09-8              | 2011-12-19 |
| 69 | Lead azide Lead diazide   | 13424-46-9           | 2011-12-19 |
| 70 | Lead styphnate  | 15245-44-0           | 2011-12-19 |
| 71 | Lead dipicrate  | 6477-64-1            | 2011-12-19 |
| 72 | $\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C-I- Solvent Blue 4) [with $\geq 0.1\%$ of Michler's ketone (EC No- 202-027-5) or Michler's base (EC No- 202-959-2)] | 6786-83-0            | 2012-6-18  |
| 73 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)  | 101-61-1             | 2012-6-18  |
| 74 | 1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione ( $\beta$ -TGIC)   | 59653-74-6           | 2012-6-18  |
| 75 | Diboron trioxide  | 1303-86-2            | 2012-6-18  |
| 76 | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)   | 112-49-2             | 2012-6-18  |
| 77 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with $\geq 0.1\%$  | 561-41-1             | 2012-6-18  |

|     |  |   |            |
|-----|--|---|------------|
|     | <i>of Michler's ketone (EC No- 202-027-5) or Michler's base (EC No- 202-959-2)]</i>  |   |            |
| 78  | Lead(II) bis(methanesulfonate)   | 17570-76-2  | 2012-6-18  |
| 79  | Formamide  | 75-12-7   | 2012-6-18  |
| 80  | [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C-I- Basic Violet 3) <i>[with ≥ 0-1% of Michler's ketone (EC No- 202-027-5) or Michler's base (EC No- 202-959-2)]</i>                  | 548-62-9  | 2012-6-18  |
| 81  | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)  | 110-71-4  | 2012-6-18  |
| 82  | [4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C-I- Basic Blue 26) <i>[with ≥ 0-1% of Michler's ketone (EC No- 202-027-5) or Michler's base (EC No- 202-959-2)]</i> | 2580-56-5   | 2012-6-18  |
| 83  | 1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)   | 2451-62-9   | 2012-6-18  |
| 84  | 4,4'-bis(dimethylamino)benzophenone (Michler's ketone)   | 90-94-8   | 2012-6-18  |
| 85  | Pyrochlore, antimony lead yellow   | 8012-00-8   | 2012-12-19 |
| 86  | 6-methoxy-m-toluidine (p-cresidine)  | 120-71-8  | 2012-12-19 |
| 87  | Henicosafuoroundecanoic acid   | 2058-94-8   | 2012-12-19 |
| 88  | Hexahydromethylphthalic anhydride [1],<br>Hexahydro-4-methylphthalic anhydride [2],<br>Hexahydro-1-methylphthalic anhydride [3],<br>Hexahydro-3-methylphthalic anhydride [4]   | 25550-51-0,<br>19438-60-9,<br>48122-14-1,<br>57110-29-9 | 2012-12-19 |
| 89  | Cyclohexane-1,2-dicarboxylic anhydride [1],<br>cis-cyclohexane-1,2-dicarboxylic anhydride [2],<br>trans-cyclohexane-1,2-dicarboxylic anhydride [3]   | 85-42-7,<br>13149-00-3,<br>14166-21-3                   | 2012-12-19 |
| 90  | Dibutyltin dichloride (DBTC)   | 683-18-1  | 2012-12-19 |
| 91  | Lead bis(tetrafluoroborate)  | 13814-96-5  | 2012-12-19 |
| 92  | Lead dinitrate   | 10099-74-8  | 2012-12-19 |
| 93  | Silicic acid, lead salt  | 11120-22-2  | 2012-12-19 |
| 94  | 4-Aminoazobenzene  | 60-09-3   | 2012-12-19 |
| 95  | Lead titanium zirconium oxide  | 12626-81-2  | 2012-12-19 |
| 96  | Lead monoxide (lead oxide)   | 1317-36-8   | 2012-12-19 |
| 97  | o-Toluidine  | 95-53-4   | 2012-12-19 |
| 98  | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine   | 143860-04-2   | 2012-12-19 |
| 99  | Silicic acid (H <sub>2</sub> SiO <sub>5</sub> ), barium salt (1:1), lead-doped   | 68784-75-8  | 2012-12-19 |
| 100 | Trilead bis(carbonate)dihydroxide  | 1319-46-6   | 2012-12-19 |
| 101 | Furan  | 110-00-9  | 2012-12-19 |
| 102 | N,N-dimethylformamide  | 68-12-2   | 2012-12-19 |
| 103 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated  |   | 2012-12-19 |
| 104 | 4-Nonylphenol, branched and linear   |   | 2012-12-19 |

|     |  |             |            |
|-----|--|-------------|------------|
| 105 | 4,4'-methylenedi-o-toluidine                                     | 838-88-0    | 2012-12-19 |
| 106 | Diethyl sulphate   | 64-67-5     | 2012-12-19 |
| 107 | Dimethyl sulphate  | 77-78-1     | 2012-12-19 |
| 108 | Lead oxide sulfate   | 12036-76-9  | 2012-12-19 |
| 109 | Lead titanium trioxide   | 12060-00-3  | 2012-12-19 |
| 110 | Acetic acid, lead salt, basic                                    | 51404-69-4  | 2012-12-19 |
| 111 | [Phthalato(2-)]dioxotrilead                                      | 69011-06-9  | 2012-12-19 |
| 112 | Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)   | 1163-19-5   | 2012-12-19 |
| 113 | N-methylacetamide  | 79-16-3     | 2012-12-19 |
| 114 | Dinoseb (6-sec-butyl-2,4-dinitrophenol)                          | 88-85-7     | 2012-12-19 |
| 115 | 1,2-Diethoxyethane   | 629-14-1    | 2012-12-19 |
| 116 | Tetralead trioxide sulphate                                      | 12202-17-4  | 2012-12-19 |
| 117 | N-pentyl-isopentylphthalate                                      | 776297-69-9 | 2012-12-19 |
| 118 | Dioxobis(stearato)trilead  | 12578-12-0  | 2012-12-19 |
| 119 | Tetraethyllead   | 78-00-2     | 2012-12-19 |
| 120 | Pentalead tetraoxide sulphate                                    | 12065-90-6  | 2012-12-19 |
| 121 | Pentacosafuorotridecanoic acid                                   | 72629-94-8  | 2012-12-19 |
| 122 | Tricosafuorododecanoic acid                                      | 307-55-1    | 2012-12-19 |
| 123 | Heptacosafuorotetradecanoic acid                                 | 376-06-7    | 2012-12-19 |
| 124 | 1-bromopropane (n-propyl bromide)                                | 106-94-5    | 2012-12-19 |
| 125 | Methoxyacetic acid   | 625-45-6    | 2012-12-19 |
| 126 | 4-methyl-m-phenylenediamine (toluene-2,4-diamine)                | 95-80-7     | 2012-12-19 |
| 127 | Methyloxirane (Propylene oxide)                                  | 75-56-9     | 2012-12-19 |
| 128 | Trilead dioxide phosphonate                                      | 12141-20-7  | 2012-12-19 |
| 129 | o-aminoazotoluene  | 97-56-3     | 2012-12-19 |
| 130 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear | 84777-06-0  | 2012-12-19 |
| 131 | 4,4'-oxydianiline and its salts                                  | 101-80-4    | 2012-12-19 |
| 132 | Orange lead (lead tetroxide)                                     | 1314-41-6   | 2012-12-19 |
| 133 | Biphenyl-4-ylamine   | 92-67-1     | 2012-12-19 |
| 134 | Diisopentylphthalate   | 605-50-5    | 2012-12-19 |
| 135 | Fatty acids, C16-18, lead salts                                  | 91031-62-8  | 2012-12-19 |
| 136 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))                | 123-77-3    | 2012-12-19 |
| 137 | Sulfurous acid, lead salt, dibasic                               | 62229-08-7  | 2012-12-19 |
| 138 | Lead cyanamidate   | 20837-86-9  | 2012-12-19 |

Signature: *Jeff England*

Date: 3/25/2013

# Material Declaration


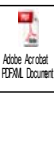
Supplier name : LINK-PP INT'L TECHNOLOGY Co.,LIMITED

Part No. : LPJ0011BBNL

Description : Mod Jack RJ-45 8/8P


Part Mass (g):7.053

Date : 2013-02-19

| No. | Sub-parts                  |           | Material Information Chemical |                                       |                |            |            |                | Precision Analysis Info |                      |    |    |    |      |     |      |   | SVHC<br>(Y/N) |
|-----|----------------------------|-----------|-------------------------------|---------------------------------------|----------------|------------|------------|----------------|-------------------------|----------------------|----|----|----|------|-----|------|---|---------------|
|     | Sub-parts<br>Name          | Weight(g) | Homogene<br>ous<br>Material   | Main<br>Chemical                      | Ratio<br>(wt%) | CAS No.    | EC NO.     | Ratio<br>(wt%) | Testing<br>Institute    | Report<br>Issue Date | Pb | Cd | Hg | Cr6+ | PBB | PBDE | ICP   |               |
| 1   | Brass<br>Shell             | 2.278     | Brass                         | Cu                                    | 32.11%         | 7440-50-8  |            | 67.74%         | SGS                     | 2012.2.13            | 16 | ND | ND | ND   | ND  | ND   |    | N             |
|     |                            |           |                               | Fe                                    |                | 7439-89-6  |            | 0.02%          | SGS                     |                      |    | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | Pb                                    |                | _____      |            | <0.003%        | SGS                     |                      |    | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | Zn                                    |                | 7440-66-6  |            | REM            | SGS                     |                      |    | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | Sb                                    |                | _____      |            | 0.00%          | SGS                     |                      |    | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | Ni                                    |                | 7440-02-0  |            | 0.01%          | SGS                     |                      |    | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | P                                     |                | 7723-14-0  |            | 0.00%          | SGS                     |                      |    | ND | ND | ND   | ND  | ND   |   |               |
| 2   | Plastic<br>Case            | 2.114     | PBT                           | Poly                                  | 29.80%         | 26062-94-2 |            | 51.50%         | SGS                     | 2011.9.27            | ND | ND | ND | ND   | ND  | ND   |  | N             |
|     |                            |           |                               | Glass<br>Fiber                        |                | 65997-17-3 |            | 18.00%         | SGS                     |                      | ND | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | Tris(tribro<br>mophenyl)<br>cyanurate |                | 25713-60-4 |            | 30.00%         | SGS                     |                      | ND | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | Sodium<br>allylsulfon<br>ate          |                | 2495-39-8  |            | 0.50%          | SGS                     |                      | ND | ND | ND | ND   | ND  | ND   |   |               |
| 3   | Phosph<br>orous<br>Contact | 1.387     | Phospho<br>r Bronze           | Cu                                    | 19.42%         | 7440-50-8  |            | 93.70%         | SGS                     |                      | ND | ND | ND | ND   | ND  | ND   |   | N             |
|     |                            |           |                               | Sn                                    |                | 7440-31-5  | 4.20-6.91% |                | SGS                     |                      | ND | ND | ND | ND   | ND  | ND   |   |               |
|     |                            |           |                               | Zn                                    |                | 7440-66-6  |            | REM            | SGS                     |                      | ND | ND | ND | ND   | ND  | ND   |   |               |

|   |      |       |         |                                      |       |                      |  |        |     |           |   |    |    |    |    |    |    |  |  |
|---|------|-------|---------|--------------------------------------|-------|----------------------|--|--------|-----|-----------|---|----|----|----|----|----|----|--|--|
|   |      |       |         | Si                                   |       | 7440-21-3            |  | 0.17%  | SGS |           |   | ND | ND | ND | ND | ND | ND |  |  |
|   |      |       |         | Fe                                   |       | 7439-89-6            |  | 0.13%  | SGS |           |   | ND | ND | ND | ND | ND | ND |  |  |
| 4 | core | 0.176 | FERRITE | H <sub>2</sub> O                     | 2.48% | —                    |  | 0.12%  | SGS | 2012.5.19 | 4 | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | Fe <sub>2</sub> O <sub>3</sub>       |       | —                    |  | 54.00% | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | N <sub>2</sub> O                     |       | —                    |  | 28.10% | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | ZnO                                  |       | —                    |  | 17.30% | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | Parylene C                           |       | —                    |  | 0.60%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | Epichloro hydrin                     |       | 106-89-8             |  | 37.79% | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | TBBA                                 |       | 79-94-7              |  | 0.01%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | Cu                                   |       | 7440-50-8            |  | 12.60% | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | SiO <sub>2</sub>                     |       | 14808-60-7           |  | 18.18% | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | CaO                                  |       | 1305-78-8            |  | 6.72%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | Al <sub>2</sub> O <sub>3</sub>       |       | 1344-28-1            |  | 4.70%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | MgO                                  |       | 1309-48-4            |  | 1.00%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | B <sub>2</sub> O <sub>3</sub>        |       | 1303-86-2            |  | 2.00%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | Na <sub>2</sub> O & K <sub>2</sub> O |       | 1313-59-3&12136-45-7 |  | 0.37%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | Fe <sub>2</sub> O <sub>3</sub>       |       | 1309-37-1            |  | 0.13%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |
|   |      |       |         | TiO <sub>2</sub>                     |       | 13463-67-7           |  | 0.57%  | SGS |           |   | ND | ND | ND | ND | ND |    |  |  |



|   |     |       |   |            |          |     |    |    |    |    |
|---|-----|-------|---|------------|----------|-----|----|----|----|----|
| 5 | PCB | 0.255 | FR-4  | 3.59%      | 2012.2.9 | 12  | N  |    |    |    |
|   |     |       | F2  | 7782-41-4  | 0.23%    | SGS | ND | ND | ND | ND |
|   |     |       | Only cause                                      | 71868-10-5 | 0.31%    | SGS | ND | ND | ND | ND |
|   |     |       | Mao green                                       | 1328-53-6  | 0.52%    | SGS | ND | ND | ND | ND |
|   |     |       | BaSO4   | 7727-43-7  | 2.71%    | SGS | ND | ND | ND | ND |
|   |     |       | Dimethyl silicone oil 201                       | 9016-00-6  | 0.18%    | SGS | ND | ND | ND | ND |
|   |     |       | cristobalite                                    | 14464-46-1 | 0.20%    | SGS | ND | ND | ND | ND |
|   |     |       | Melamine  | 108-78-1   | 0.15%    | SGS | ND | ND | ND | ND |
|   |     |       | DBE   | 64742-94-5 | 0.58%    | SGS | ND | ND | ND | ND |
|   |     |       | TGIC  | 2451-62-9  | 0.16%    | SGS | ND | ND | ND | ND |
|   |     |       | BaSO4   | 7727-43-7  | 2.71%    | SGS | ND | ND | ND | ND |
|   |     |       | DPHA  | 29570-58-9 | 0.32%    | SGS | ND | ND | ND | ND |
|   |     |       | poly((O-cresyl glycidyl ether)-co-formaldehyde) | 29690-82-2 | 0.27%    | SGS | ND | ND | ND | ND |
|   |     |       | araldite  | 25068-38-6 | 0.33%    | SGS | ND | ND | ND | ND |
|   |     |       | Dicyandiamide                                   | 461-58-5   | 0.09%    | SGS | ND | ND | ND | ND |
|   |     |       | Silicone oil                                    | 63148-62-9 | 0.04%    | SGS | ND | ND | ND | ND |
|   |     |       | AU  | 7440-57-5  | 1.99%    | SGS | ND | ND | ND | ND |
|   |     |       | Fe  | 7439-89-6  | 0.01%    | SGS | ND | ND | ND | ND |
|   |     |       | Ni2SO4  | 7786-81-4  | 3.64%    | SGS | ND | ND | ND | ND |











|   |                      |       |                 |                    |       |            |  |            |     |           |  |    |    |    |    |    |  |   |
|---|----------------------|-------|-----------------|--------------------|-------|------------|--|------------|-----|-----------|--|----|----|----|----|----|--|---|
|   |                      |       |                 | NiCP2              |       | 7718-54-9  |  | 0.04%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | P                  |       | 7723-14-0  |  | 0.32%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
| 6 | LED                  | 0.372 | GaP             | Epoxy              | 5.24% | 25068-38-6 |  | 23.75%     | SGS | 2012.3.16 |  | ND | ND | ND | ND | ND |  | N |
|   |                      |       |                 | Thinning Agent     |       | 68609-97-2 |  | 1.25%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Fe                 |       | 7439-89-6  |  | 42.00%     | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Cu                 |       | 7440-50-8  |  | 7.00%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Ag                 |       | 7440-22-4  |  | 3.50%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Ni                 |       | 7440-02-0  |  | 7.00%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Sn                 |       | 7440-31-5  |  | 10.50%     | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Ga                 |       | 7440-55-3  |  | 0.45%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | As                 |       | 7440-38-2  |  | 0.45%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | p                  |       | 7723-14-0  |  | 0.60%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Ag                 |       | 7440-22-4  |  | 2.85%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Epoxy              |       | 25068-38-6 |  | 0.15%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
|   |                      |       |                 | Au                 |       | 7440-55-5  |  | 0.50%      | SGS |           |  | ND | ND | ND | ND | ND |  |   |
| 7 | Phosphorous Wire(R)  | 0.188 | Phosphor Bronze | Copper             | 3%    | —          |  | 97.1-97.8% | SGS | 2012.1.12 |  | ND | ND | ND | ND | ND |  | N |
| 8 | Phosphorous Wire(R)  |       |                 | Polyurethane resin |       | —          |  | 2.0-2.6%   | SGS | 2012.1.12 |  | ND | ND | ND | ND | ND |  | N |
| 9 | Phosphorous Wire(BR) |       |                 | Polyanide          |       | —          |  |            | SGS | 2012.1.12 |  | ND | ND | ND | ND | ND |  | N |

|    |                      |       |                          |                   |       |            |          |     |               |     |    |    |    |    |    |   |   |
|----|----------------------|-------|--------------------------|-------------------|-------|------------|----------|-----|---------------|-----|----|----|----|----|----|---|---|
| 10 | Phosphorous Wire(GR) |       |                          | resin             |       | —          | 0.2-0.3% | SGS | 2012.1.1<br>2 | ND  | ND | ND | ND | ND | ND |    | N |
| 11 | Resistance           | 0.006 | Thick Film Chip Resistor | Additives         | 0.09% | 2530-83-8  | 0.15%    | SGS | 2012.1.5      | 333 | ND | ND | ND | ND | ND |  | N |
|    |                      |       |                          | Aluminum trioxide |       | 1344-28-1  | 90.21%   | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Bismuth Oxide     |       | 1304-76-3  | 0.02%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | 25068-38-6        |       | 25068-38-6 | 0.31%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Boron Trioxide    |       | 1303-86-2  | 0.06%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Cellulose resin   |       | 9004-57-3  | 0.03%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Chromium          |       | 7440-47-3  | 0.00%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Color pigments    |       | 68186-91-4 | 0.15%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Cupric oxide      |       | 1317-38-0  | 0.07%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Epoxy             |       | 29661-89-0 | 0.28%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Glass Frits       |       | 65997-18-4 | 0.68%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Lead oxide        |       | 1317-36-8  | 0.13%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Magnesium oxide   |       | 1309-48-4  | 0.93%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Manganese Oxide   |       | 1313-13-9  | 0.02%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Manganese Oxide   |       | 1344-43-0  | 0.01%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Ni                |       | 7440-02-0  | 0.32%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |
|    |                      |       |                          | Palladium         |       | 7440-05-3  | 0.13%    | SGS |               |     | ND | ND | ND | ND | ND |   |   |

|    |             |       |            |                              |       |            |  |        |     |           |    |    |    |    |    |   |   |
|----|-------------|-------|------------|------------------------------|-------|------------|--|--------|-----|-----------|----|----|----|----|----|---|---|
|    |             |       |            | Pigment (Barium sulfate)     |       | 7727-43-7  |  | 0.02%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Pigment(Chromium(III) Oxide) |       | 1308-38-9  |  | 0.01%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Ruthenium Dioxide            |       | 12036-10-1 |  | 0.04%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Silicon dioxide              |       | 14808-60-7 |  | 2.47%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Silicon dioxide              |       | 60676-86-0 |  | 0.37%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Silicon oxide                |       | 7631-86-9  |  | 0.19%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Silver                       |       | 7440-22-4  |  | 2.52%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Talc                         |       | 14807-96-6 |  | 0.06%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Tin                          |       | 7440-31-5  |  | 0.42%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Titanium (IV) Oxide          |       | 13463-67-7 |  | 0.03%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Vanadium oxide               |       | 1314-62-1  |  | 0.02%  | SGS |           | ND | ND | ND | ND | ND |   |   |
| 12 | Capacitance | 0.072 | X7R Series | BaTiO3                       | 1.01% | 12047-27-7 |  | 85.41% | SGS | 2012.1.20 | ND | ND | ND | ND | ND |  | N |
|    |             |       |            | Dopant                       |       | —          |  | 4.43%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Ni                           |       | 7440-02-0  |  | 5.10%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Cu                           |       | 7440-50-8  |  | 5.62%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Ni                           |       | 7440-02-0  |  | 0.15%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Sn                           |       | 7440-31-5  |  | 0.53%  | SGS |           | ND | ND | ND | ND | ND |   |   |
|    |             |       |            | Sn                           |       | 7440-31-5  |  | REM    | SGS |           | ND | ND | ND | ND | ND |   |   |

|    |                       |       |                    |                            |       |           |  |         |          |            |    |    |    |    |    |    |   |  |
|----|-----------------------|-------|--------------------|----------------------------|-------|-----------|--|---------|----------|------------|----|----|----|----|----|----|---|--|
| 13 | Tin                   | 0.05  | Su/Cu              | Pb                         | 0.71% | 7439-92-1 |  | <0.10%  | SGS      | 2011.10.24 | 62 | ND | ND | ND | ND | ND | <br>Adobe Acrobat<br>PDF Document  | N  |
|    |                       |       |                    | Sb                         |       | ———       |  | <0.10%  | SGS      |            |    | ND | ND | ND | ND | ND |   |  |
|    |                       |       |                    | Cu                         |       | 7440-50-8 |  | 0.7±0.2 | SGS      |            |    | ND | ND | ND | ND | ND |   |  |
|    |                       |       |                    | Bi                         |       | 7440-69-9 |  | <0.10%  | SGS      |            |    | ND | ND | ND | ND | ND |   |  |
|    |                       |       |                    | Zn                         |       | 7440-66-6 |  | <0.002% | SGS      |            |    | ND | ND | ND | ND | ND |   |  |
|    |                       |       |                    | Fe                         |       | 7439-89-6 |  | <0.02%  | SGS      |            |    | ND | ND | ND | ND | ND |   |  |
|    |                       |       |                    | Al                         |       | 7429-90-5 |  | <0.002% | SGS      |            |    | ND | ND | ND | ND | ND |   |  |
|    |                       |       |                    | Cd                         |       | 7440-43-9 |  | <0.002% | SGS      |            |    | ND | ND | ND | ND | ND |   |  |
| 14 | Epoxide-resin glue(A) | 0.155 | Epoxide-resin glue | Organopolysiloxane mixture | 2.18% | ———       |  | 99.45%  | INTERTEK | 2011.7.14  |    | ND | ND | ND | ND | ND | <br>Adobe Acrobat<br>PDF Document | N  |
| 15 | Epoxide-resin glue(B) |       |                    | Crystalline silica         |       | ———       |  | 0.55%   | INTERTEK | 2.11.7.14  |    | ND | ND | ND | ND | ND | ND  | <br>Adobe Acrobat<br>PDF Document |



**Test Report  
(SVHC)**

No.: CANEC1300678301

Date: 23 Jan 2013

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PCB UNIVERSE INC.  
11818 SE MILL PLAIN BLVD, SUITE 208  
VANCOUVER, WA 98684 USA

The following sample(s) was/were submitted and identified on behalf of the clients as : Immersion Au

SGS Job No. : CP13-001959 - SZ  
Date of Sample Received : 14 Jan 2013  
Testing Period : 14 Jan 2013 – 23 Jan 2013

Test Requested : As requested by client, SVHC screening is performed according to:  
(i) One hundred and thirty eight (138) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before Dec 19, 2012 regarding Regulation (EC) No 1907/2006 concerning the REACH.

Test Result(s) : Please refer to next page(s).

Summary :

According to the specified scope and analytical techniques, concentrations of tested SVHC are  $\leq 0.1\%$  (w/w) in the submitted sample.

PASS

Signed for and on behalf of  
SGS-CSTC Ltd.

Zm guan  
Approved Signatory

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## Test Report (SVHC)

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### Remark :

- (1) The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA:  
<http://echa.europa.eu/web/guest/candidate-list-table>  
 These lists are under evaluation by ECHA and may subject to change in the future.

- (2) Concerning article(s):  
 In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).

Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.

SGS adopts the interpretation of ECHA for SVHC in article unless indicated otherwise. Detail explanation is available at the following link:

[http://webstage.contribute.sgs.net/corpreach/documents/SGS-CTS\\_SVHC-paper-EN-11.pdf](http://webstage.contribute.sgs.net/corpreach/documents/SGS-CTS_SVHC-paper-EN-11.pdf)

- (3) Concerning material(s):  
 Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

- (4) Concerning substance and preparation:  
 If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and No 790/2009, client is suggested to prepare a Safety Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

- a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.
- a mixture that is classified as dangerous according Dangerous Preparations Directive 1999/45/EC or classified as hazardous under the CLP Regulation (EC) No 1272/2008, when their concentrations are equal to, or greater than, those defined in the Article 3(3) of 1999/45/EC or the lower values given in Part 3 of Annex VI of Regulation (EC) No. 1272/2008; or
- a mixture is not classified as dangerous under Directive 1999/45/EC, but contains either:





**Test Report  
(SVHC)**

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- (a) a substance posing human health or environmental hazards in an individual concentration of  $\geq 1\%$  by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or  $\geq 0.2\%$  by volume for gaseous mixtures; or
- (b) a substance that is PBT, or vPvB in an individual concentration of  $\geq 0.1\%$  by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or
- (c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of  $\geq 0.1\%$  by weight for non-gaseous mixtures; or
- (d) a substance for which there are Europe-wide workplace exposure limits.

- (5) If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

**Test Sample :**

Sample Description :

| Specimen No. | SGS Sample ID    | Description |
|--------------|------------------|-------------|
| 1            | CAN13-006783.001 | Green "PCB" |

**Test Method:**

SGS In-House method- GZTC CHEM-TOP-092-01, GZTC CHEM-TOP-092-02, Analyzed by ICP-OES, GC-MS, UV-VIS and Colorimetric Method/HPLC-DAD/MS.

# Test Report (SVHC)

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## Test Result: (Substances in the Candidate List of SVHC)

| No. | Substance Name   | CAS No.    | EC No.    | 001<br>Concentration<br>(%) | RL(%) |
|-----|--|------------|-----------|-----------------------------|-------|
| 1   | [Phthalato(2-)]dioxotrilead*   | 69011-06-9 | 273-688-5 | ND                          | 0.005 |
| 2   | [4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) <sup>§</sup> | 2580-56-5  | 219-943-6 | ND                          | 0.050 |
| 3   | [4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) <sup>§</sup>                   | 548-62-9   | 208-953-6 | ND                          | 0.050 |
| 4   | 1,2,3-trichloropropane   | 96-18-4    | 202-486-1 | ND                          | 0.050 |
| 5   | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich   | 71888-89-6 | 276-158-1 | ND                          | 0.050 |
| 6   | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters  | 68515-42-4 | 271-084-6 | ND                          | 0.050 |
| 7   | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear   | 84777-06-0 | 284-032-2 | ND                          | 0.050 |
| 8   | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)  | 112-49-2   | 203-977-3 | ND                          | 0.050 |
| 9   | 1,2-dichloroethane   | 107-06-2   | 203-458-1 | ND                          | 0.050 |
| 10  | 1,2-Diethoxyethane   | 629-14-1   | 211-076-1 | ND                          | 0.050 |
| 11  | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)  | 110-71-4   | 203-794-9 | ND                          | 0.050 |
| 12  | 1-Bromopropane   | 106-94-5   | 203-445-0 | ND                          | 0.050 |
| 13  | 1-Methyl-2-pyrrolidone   | 872-50-4   | 212-828-1 | ND                          | 0.050 |
| 14  | 2,2'-dichloro-4,4'-methylenedianiline  | 101-14-4   | 202-918-9 | ND                          | 0.050 |
| 15  | 2-Methoxyaniline; o-Anisidine  | 90-04-0    | 201-963-1 | ND                          | 0.050 |
| 16  | 2,4-Dinitrotoluene   | 121-14-2   | 204-450-0 | ND                          | 0.050 |
| 17  | 2-Ethoxyethanol  | 110-80-5   | 203-804-1 | ND                          | 0.050 |
| 18  | 2-Ethoxyethyl acetate  | 111-15-9   | 203-839-2 | ND                          | 0.050 |

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| No. | Substance Name   | CAS No.                  | EC No.    | 001<br>Concentration<br>(%) | RL(%) |
|-----|--|--------------------------|-----------|-----------------------------|-------|
| 19  | 2-Methoxyethanol   | 109-86-4                 | 203-713-7 | ND                          | 0.050 |
| 20  | 3-Ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine                   | 143860-04-2              | 421-150-7 | ND                          | 0.050 |
| 21  | 4-(1,1,3,3-tetramethylbutyl)phenol                                   | 140-66-9                 | 205-426-2 | ND                          | 0.050 |
| 22  | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated                      | -                        | -         | ND                          | 0.050 |
| 23  | 4,4'-bis(dimethylamino) benzophenone (Michler's Ketone)              | 90-94-8                  | 202-027-5 | ND                          | 0.050 |
| 24  | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol <sup>§</sup> | 561-41-1                 | 209-218-2 | ND                          | 0.050 |
| 25  | 4,4'-Diaminodiphenylmethane(MDA)                                     | 101-77-9                 | 202-974-4 | ND                          | 0.050 |
| 26  | 4,4'-Methylenedi-o-toluidine   | 838-88-0                 | 212-658-8 | ND                          | 0.050 |
| 27  | 4,4'-Oxydianiline and its salts                                      | 101-80-4                 | 202-977-0 | ND                          | 0.050 |
| 28  | 4-Aminoazobenzene  | 60-09-3                  | 200-453-6 | ND                          | 0.050 |
| 29  | 4-Methyl-m-phenylenediamine  | 95-80-7                  | 202-453-1 | ND                          | 0.050 |
| 30  | 4-Nonylphenol, branched and linear                                   | -                        | -         | ND                          | 0.050 |
| 31  | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)                   | 81-15-2                  | 201-329-4 | ND                          | 0.050 |
| 32  | 6-Methoxy-m-toluidine  | 120-71-8                 | 204-419-1 | ND                          | 0.050 |
| 33  | Acetic acid, lead salt, basic*                                       | 51404-69-4               | 257-175-3 | ND                          | 0.005 |
| 34  | Acrylamide   | 79-06-1                  | 201-173-7 | ND                          | 0.050 |
| 35  | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)          | 85535-84-8               | 287-476-5 | ND                          | 0.050 |
| 36  | Aluminosilicate Refractory Ceramic Fibres**                          | 650-017-00-8 (Index no.) | -         | ND                          | 0.005 |
| 37  | Ammonium dichromate*   | 7789-09-5                | 232-143-1 | ND                          | 0.005 |
| 38  | Anthracene   | 120-12-7                 | 204-371-1 | ND                          | 0.050 |
| 39  | Anthracene oil*  | 90640-80-5               | 292-602-7 | ND                          | 0.050 |
| 40  | Anthracene oil, anthracene paste*                                    | 90640-81-6               | 292-603-2 | ND                          | 0.050 |

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# Test Report (SVHC)

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| No. | Substance Name  | CAS No.                  | EC No.                 | 001<br>Concentration<br>(%) | RL(%) |
|-----|---|--------------------------|------------------------|-----------------------------|-------|
| 41  | Anthracene oil, anthracene paste, anthracene fraction*                            | 91995-15-2               | 295-275-9              | ND                          | 0.050 |
| 42  | Anthracene oil, anthracene paste, distn. Lights*                                  | 91995-17-4               | 295-278-5              | ND                          | 0.050 |
| 43  | Anthracene oil, anthracene-low*   | 90640-82-7               | 292-604-8              | ND                          | 0.050 |
| 44  | Arsenic acid*   | 7778-39-4                | 231-901-9              | ND                          | 0.005 |
| 45  | Benzyl butyl phthalate (BBP)  | 85-68-7                  | 201-622-7              | ND                          | 0.050 |
| 46  | Biphenyl-4-ylamine  | 92-67-1                  | 202-177-1              | ND                          | 0.050 |
| 47  | Bis(2-ethylhexyl)phthalate (DEHP)   | 117-81-7                 | 204-211-0              | ND                          | 0.050 |
| 48  | Bis(2-methoxyethyl) ether   | 111-96-6                 | 203-924-4              | ND                          | 0.050 |
| 49  | Bis(2-methoxyethyl) phthalate   | 117-82-8                 | 204-212-6              | ND                          | 0.050 |
| 50  | Bis(pentabromophenyl) ether (DecaBDE)   | 1163-19-5                | 214-604-9              | ND                          | 0.050 |
| 51  | Bis(tributyltin)oxide (TBTO)  | 56-35-9                  | 200-268-0              | ND                          | 0.050 |
| 52  | Boric acid*   | 10043-35-3<br>11113-50-1 | 233-139-2<br>234-343-4 | 0.059                       | 0.005 |
| 53  | Calcium arsenate*   | 7778-44-1                | 231-904-5              | ND                          | 0.005 |
| 54  | Chromic acid,<br>Oligomers of chromic acid and dichromic acid,<br>Dichromic acid* | 7738-94-5<br>13530-68-2  | 231-801-5<br>236-881-5 | ND                          | 0.005 |
| 55  | Chromium trioxide*  | 1333-82-0                | 215-607-8              | ND                          | 0.005 |
| 56  | Cobalt dichloride*  | 7646-79-9                | 231-589-4              | ND                          | 0.005 |
| 57  | Cobalt(II) carbonate*   | 513-79-1                 | 208-169-4              | ND                          | 0.005 |
| 58  | Cobalt(II) diacetate*   | 71-48-7                  | 200-755-8              | ND                          | 0.005 |
| 59  | Cobalt(II) dinitrate*   | 10141-05-6               | 233-402-1              | ND                          | 0.005 |

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| No. | Substance Name   | CAS No.                              | EC No.    | 001<br>Concentration<br>(%) | RL(%) |
|-----|--|--------------------------------------|-----------|-----------------------------|-------|
| 60  | Cobalt(II) sulphate*                                       | 10124-43-3                           | 233-334-2 | ND                          | 0.005 |
| 61  | Diarsenic pentaoxide*                                      | 1303-28-2                            | 215-116-9 | ND                          | 0.005 |
| 62  | Diarsenic trioxide*  | 1327-53-3                            | 215-481-4 | ND                          | 0.005 |
| 63  | Diazene-1,2-dicarboxamide<br>(C,C'-azodi(formamide))       | 123-77-3                             | 204-650-8 | ND                          | 0.050 |
| 64  | Diboron trioxide*  | 1303-86-2                            | 215-125-8 | 0.033                       | 0.005 |
| 65  | Dibutyltin dichloride (DBTC)                               | 683-18-1                             | 211-670-0 | ND                          | 0.050 |
| 66  | Dibutyl phthalate (DBP)                                    | 84-74-2                              | 201-557-4 | ND                          | 0.050 |
| 67  | Dichromium tris(chromate)*                                 | 24613-89-6                           | 246-356-2 | ND                          | 0.005 |
| 68  | Diethyl sulphate   | 64-67-5                              | 200-589-6 | ND                          | 0.050 |
| 69  | Diisobutyl phthalate                                       | 84-69-5                              | 201-553-2 | ND                          | 0.050 |
| 70  | Disodium tetraborate, anhydrous*                           | 1303-96-4<br>1330-43-4<br>12179-04-3 | 215-540-4 | ND                          | 0.005 |
| 71  | Diisopentylphthalate                                       | 605-50-5                             | 210-088-4 | ND                          | 0.050 |
| 72  | Dimethyl sulphate  | 77-78-1                              | 201-058-1 | ND                          | 0.050 |
| 73  | Dinoseb  | 88-85-7                              | 201-861-7 | ND                          | 0.050 |
| 74  | Dioxobis(stearato)trilead*                                 | 12578-12-0                           | 235-702-8 | ND                          | 0.005 |
| 75  | Fatty acids, C16-18, lead salts*                           | 91031-62-8                           | 292-966-7 | ND                          | 0.005 |
| 76  | Formaldehyde, oligomeric reaction<br>products with aniline | 25214-70-4                           | 500-036-1 | ND                          | 0.050 |
| 77  | Formamide  | 75-12-7                              | 200-842-0 | ND                          | 0.050 |
| 78  | Furan  | 110-00-9                             | 203-727-3 | ND                          | 0.050 |

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| No. | Substance Name  | CAS No.                         | EC No.                          | 001<br>Concentration<br>(%) | RL(%) |
|-----|---|---------------------------------|---------------------------------|-----------------------------|-------|
| 79  | Henicosfluoroundecanoic acid  | 2058-94-8                       | 218-165-4                       | ND                          | 0.050 |
| 80  | Heptacosfluorotetradecanoic acid  | 376-06-7                        | 206-803-4                       | ND                          | 0.050 |
| 81  | Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ -HBCDD, $\beta$ -HBCDD, $\gamma$ -HBCDD) $\Delta$               | 25637-99-4 and 3194-55-6        | 247-148-4 and 221-695-9         | ND                          | 0.050 |
| 82  | Cyclohexane-1,2-dicarboxylic anhydride, <i>cis</i> -cyclohexane-1,2-dicarboxylic anhydride, <i>trans</i> -cyclohexane-1,2-dicarboxylic anhydride    | 85-42-7, 13149-00-3, 14166-21-3 | 201-604-9, 236-086-3, 238-009-9 | ND                          | 0.050 |
| 83  | Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride | ☆                               | ☆                               | ND                          | 0.050 |
| 84  | Hydrazine   | 7803-57-8 302-01-2              | 206-114-9                       | ND                          | 0.050 |
| 85  | Lead bis(tetrafluoroborate)*  | 13814-96-5                      | 237-486-0                       | ND                          | 0.005 |
| 86  | Lead chromate*  | 7758-97-6                       | 231-846-0                       | ND                          | 0.005 |
| 87  | Lead cyanamidate*   | 20837-86-9                      | 244-073-9                       | ND                          | 0.005 |
| 88  | Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*  | 12656-85-8                      | 235-759-9                       | ND                          | 0.005 |
| 89  | Lead diazide, Lead azide*   | 13424-46-9                      | 236-542-1                       | ND                          | 0.005 |
| 90  | Lead dipicrate*   | 6477-64-1                       | 229-335-2                       | ND                          | 0.005 |
| 91  | Lead dinitrate*   | 10099-74-8                      | 233-245-9                       | ND                          | 0.005 |
| 92  | Lead hydrogen arsenate*   | 7784-40-9                       | 232-064-2                       | ND                          | 0.005 |
| 93  | Lead monoxide*  | 1317-36-8                       | 215-267-0                       | ND                          | 0.005 |
| 94  | Lead oxide sulfate*   | 12036-76-9                      | 234-853-7                       | ND                          | 0.005 |
| 95  | Lead styphnate*   | 15245-44-0                      | 239-290-0                       | ND                          | 0.005 |

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| No. | Substance Name   | CAS No.     | EC No.    | 001<br>Concentration<br>(%) | RL(%) |
|-----|--|-------------|-----------|-----------------------------|-------|
| 96  | Lead sulfochromate yellow (C.I. Pigment Yellow 34)*            | 1344-37-2   | 215-693-7 | ND                          | 0.005 |
| 97  | Lead tetroxide (orange lead)*                                  | 1314-41-6   | 215-235-6 | ND                          | 0.005 |
| 98  | Lead titanium trioxide*  | 12060-00-3  | 235-038-9 | ND                          | 0.005 |
| 99  | Lead titanium zirconium oxide*                                 | 12626-81-2  | 235-727-4 | ND                          | 0.005 |
| 100 | Lead(II) bis(methanesulfonate)*                                | 17570-76-2  | 401-750-5 | ND                          | 0.005 |
| 101 | Methoxyacetic acid   | 625-45-6    | 210-894-6 | ND                          | 0.050 |
| 102 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base) | 101-61-1    | 202-959-2 | ND                          | 0.050 |
| 103 | N,N-dimethylacetamide  | 127-19-5    | 204-826-4 | ND                          | 0.050 |
| 104 | N,N-dimethylformamide  | 68-12-2     | 200-679-5 | ND                          | 0.050 |
| 105 | N-Methylacetamide  | 79-16-3     | 201-182-6 | ND                          | 0.050 |
| 106 | N-Pentyl-isopentylphthalate                                    | 776297-69-9 | -         | ND                          | 0.050 |
| 107 | o-Aminoazotoluene  | 97-56-3     | 202-591-2 | ND                          | 0.050 |
| 108 | o-Toluidine  | 95-53-4     | 202-429-0 | ND                          | 0.050 |
| 109 | Pentacosafuorotridecanoic acid                                 | 72629-94-8  | 276-745-2 | ND                          | 0.050 |
| 110 | Pentalead tetraoxide sulphate*                                 | 12065-90-6  | 235-067-7 | ND                          | 0.005 |
| 111 | Pentazinc chromate octahydroxide*                              | 49663-84-5  | 256-418-0 | ND                          | 0.005 |
| 112 | Phenolphthalein  | 77-09-8     | 201-004-7 | ND                          | 0.050 |
| 113 | Pitch, coal tar, high temp.*                                   | 65996-93-2  | 266-028-2 | ND                          | 0.050 |
| 114 | Potassium chromate*  | 7789-00-6   | 232-140-5 | ND                          | 0.005 |
| 115 | Potassium dichromate*  | 7778-50-9   | 231-906-6 | ND                          | 0.005 |

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| No. | Substance Name  | CAS No.                 | EC No.    | 001<br>Concentration<br>(%) | RL(%) |
|-----|---|-------------------------|-----------|-----------------------------|-------|
| 116 | Potassium hydroxyoctaoxodizincatedichromate*                            | 11103-86-9              | 234-329-8 | ND                          | 0.005 |
| 117 | Methyloxirane (Propylene oxide)   | 75-56-9                 | 200-879-2 | ND                          | 0.050 |
| 118 | Pyrochlore, antimony lead yellow*                                       | 8012-00-8               | 232-382-1 | ND                          | 0.005 |
| 119 | Silicic acid, barium salt, lead-doped*                                  | 68784-75-8              | 272-271-5 | ND                          | 0.005 |
| 120 | Silicic acid, lead salt*  | 11120-22-2              | 234-363-3 | ND                          | 0.005 |
| 121 | Sodium chromate*  | 7775-11-3               | 231-889-5 | ND                          | 0.005 |
| 122 | Sodium dichromate*  | 7789-12-0<br>10588-01-9 | 234-190-3 | ND                          | 0.005 |
| 123 | Strontium chromate*   | 7789-06-2               | 232-142-6 | ND                          | 0.005 |
| 124 | Sulfurous acid, lead salt, dibasic*                                     | 62229-08-7              | 263-467-1 | ND                          | 0.005 |
| 125 | Tetraboron disodium heptaoxide, hydrate*                                | 12267-73-1              | 235-541-3 | ND                          | 0.005 |
| 126 | Tetraethyllead*   | 78-00-2                 | 201-075-4 | ND                          | 0.005 |
| 127 | Tetralead trioxide sulphate*  | 12202-17-4              | 235-380-9 | ND                          | 0.005 |
| 128 | TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) | 2451-62-9               | 219-514-3 | ND                          | 0.050 |
| 129 | Trichloroethylene   | 79-01-6                 | 201-167-4 | ND                          | 0.050 |
| 130 | Tricosafuorododecanoic acid   | 307-55-1                | 206-203-2 | ND                          | 0.050 |
| 131 | Triethyl arsenate*  | 15606-95-8              | 427-700-2 | ND                          | 0.005 |
| 132 | Trilead bis(carbonate)dihydroxide (basic lead carbonate)*               | 1319-46-6               | 215-290-6 | ND                          | 0.005 |
| 133 | Trilead diarsenate*   | 3687-31-8               | 222-979-5 | ND                          | 0.005 |
| 134 | Trilead dioxide phosphonate*  | 12141-20-7              | 235-252-2 | ND                          | 0.005 |
| 135 | Tris(2-chloroethyl)phosphate  | 115-96-8                | 204-118-5 | ND                          | 0.050 |

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| No. | Substance Name   | CAS No.                     | EC No.    | 001<br>Concentration<br>(%) | RL(%) |
|-----|--|-----------------------------|-----------|-----------------------------|-------|
| 136 | Zirconia Aluminosilicate Refractory Ceramic Fibres**   | 650-017-00-8<br>(Index no.) | -         | ND                          | 0.005 |
| 137 | α,α-Bis[4-(dimethylamino)phenyl]-4<br>(phenylamino)naphthalene-1-methanol<br>(C.I. Solvent Blue 4) § | 6786-83-0                   | 229-851-8 | ND                          | 0.050 |
| 138 | β-TGIC (1,3,5-tris[(2S and 2R)-2,3-<br>epoxypropyl]-1,3,5-triazine-2,4,6-<br>(1H,3H,5H)-trione)      | 59653-74-6                  | 423-400-0 | ND                          | 0.050 |

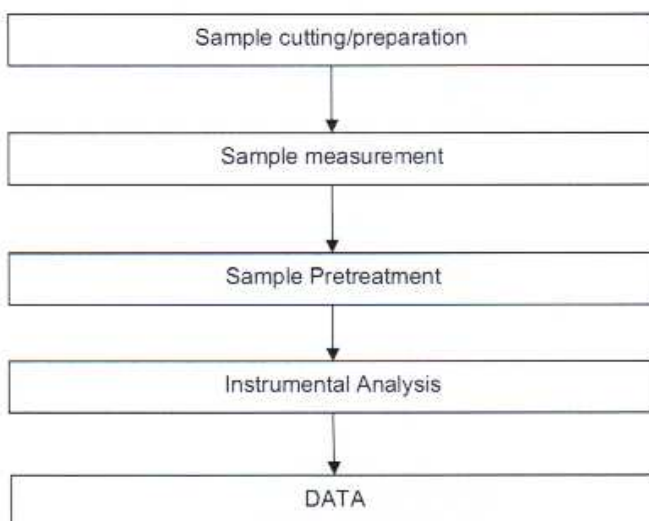
## Notes:

- (1) RL = Reporting Limit. All RL are based on homogenous material  
ND = Not detected (lower than RL), ND is denoted on the SVHC substance.
- (2) \* CAS No. of diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD): 134237-50-6, 134237-51-7, 134237-52-8  
☆ CAS No. of 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; EC No. of those: 247-094-1, 243-072-0, 256-356-4, 260-566-1.
- (3)\* The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website: [www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm](http://www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm)
- Calculated concentration of diboron trioxide, boric acid, disodium tetraborate anhydrous, tetraboron disodium heptaoxide hydrate and Lead bis(tetrafluoroborate) are based on the water extractive boron and sodium by ICP-OES.
- RL = 0.005% is evaluated for element (i.e. cobalt, arsenic, lead, sodium, chromium (VI), silicon, aluminum, zirconium, boron, potassium, strontium, zinc, calcium, antimony, titanium and barium respectively), except molybdenum RL=0.0005%, boron RL=0.0025% (only for Lead bis(tetrafluoroborate)).
- (4) § The substance is proposed for the identification as SVHC only where it contains Michler's ketone (CAS Number: 90-94-8) or Michler's base (CAS Number: 101-61-1) ≥0.1% (w/w).
- (5)\* On Jun 18, 2012, ECHA consolidated two entries of aluminosilicate refractory ceramic fibres and two of zirconia aluminosilicate refractory ceramic fibres in the Candidate List of SVHC for authorization published in Jan 2010 and Dec 2011 into one entry for aluminosilicate refractory ceramic fibres and one for zirconia aluminosilicate refractory ceramic fibres.

## ATTACHMENTS

### SVHC Testing Flow Chart

- 1) Name of the person who made testing: Michael Tso / Liu Qiong
- 2) Name of the person in charge of testing: Adams Yu / Yolanda Wei





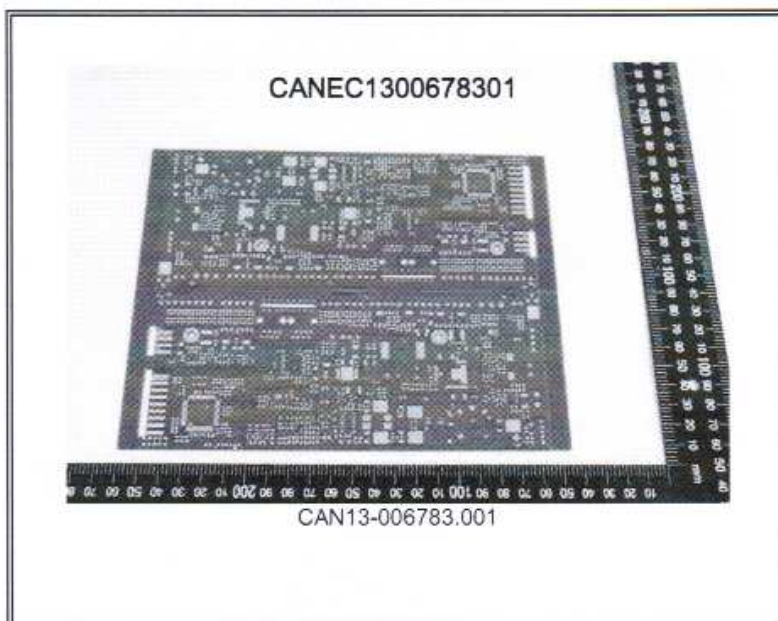
## Test Report (SVHC)

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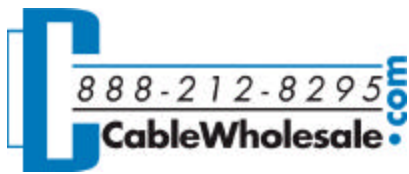
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Sample photo:



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*



P.O. Box 11775  
Pleasanton, CA 94588  
Tel: (925) 455-0800  
Fax: (925) 455-0808

### CERTIFICATE OF ORIGIN

Date: **Apr 03, 2013**  
Part Number: **10UM-02103BK**  
Description: **Mini USB 2.0 Cable, Black, Type A Male to 5 Pin Mini-B Male, 3 foot**

This is to certify the country or countries of origin for materials used in the production of the above-referenced part.

| Percent | Country    | Notes |
|---------|------------|-------|
| 100%    | CN - China |       |

This is to certify the country of final assembly for the above-referenced part:

| Percent | Country    | HTS / Schedule B | ECCN   | Notes                    |
|---------|------------|------------------|--------|--------------------------|
| 100%    | CN - China | 8544.42.9000     | EAR-99 | Producer: Cable Showcase |

The above-named product:

- ☐ Does  
☒ Does Not

qualify as Originating Goods under the NAFTA Rules of Origin.

The above-named product:

- ☒ Does  
☐ Does Not

comply with the European Union REACH 1907/2006 (SVHC 84) directive, as well as the RoHS 2002/95/EC directive, with NO RoHS EXEMPTIONS APPLIED.

All units comply with the purchase agreements and applicable specifications in effect at the date of manufacture.

Signed:   
Quality Assurance Manager