

10th Aug 2020

To: AKMMeadville Electronics (Xiamen) Co., Ltd. Printed Circuit Board Customers

Re: Declaration on European Union (EU) REACH Compliance

Dear Valued Customers:

AKMMeadville Electronics (Xiamen) Co., Ltd., and all its wholly owned subsidiaries ⁽¹⁾, is a “build to print” manufacturer that builds unpopulated printed circuit boards (bare boards) that are specified by our respective customers. We are a non-EU producer of articles whereby the registration of substances used to build our products is not required under the REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) regulation. In addition, our products do not have any intentional release of chemical substances during normal use.

Bare boards manufactured by us:

- Meet the “article” as defined under Article 3(3) of REACH that may include “complex objects”;
- Do not violate any REACH Annex XVII restriction(s) per the updated version dated on 24th June 2020, (<https://echa.europa.eu/substances-restricted-under-reach>);
- Do not contain any of the reportable SVHC (Substances of Very High Concern) ingredients listed on the REACH Candidate List of SVHC as updated on 25th June 2020. (<https://echa.europa.eu/candidate-list-table>) at a concentration of ≥ 0.1 wt. % with the following potential exceptions:
 - Lead (Pb, CAS No 7439-92-1) – This SVHC would be reportable if tin/lead solder is required in the customer’s design and the weight of the SVHC divided by the weight of the bare board is ≥ 0.1 wt. %.
 - Bisphenol A (BPA, CAS No 80-05-7) – The SVHC is being reported in all bare boards manufactured using Panasonic Megtron 4® (R-5725/R-5620) laminates or prepregs as specified by customers. Megtron 4 is reported by the manufacturer to always contain BPA in excess of 0.1 wt. %.
 - Hydrogenated Terphenyl (CAS No 61788-32-7) – The SVHC is considered as reportable if Henke ECCObond® 45 Black Epoxy Fillet is required in the customer’s design and the weight of the SVHC divided by the weight of the bare board is ≥ 0.1 wt. %. Note: ECCObond 45 is only used on flex and rigid-flex board designs.

- N,N-Dimethylacetamide (DMAc, CAS No 127-19-5) – The SVHC is being reported under complex conditions involving the use of Hitachi MCL-HE-679G, GHA-679G, and DuPont Pyralux® products as specified by customers. Some Pyralux products always contain reportable SVHC while others would become reportable if copper is removed during the board imaging process whereas the remaining conditions might not need to be reported. Note: Pyralux is only used on flex and rigid-flex board designs.
- 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone (CAS No 119313-12-1) – The SVHC is considered as reportable if Taiyo ink PSR-4000 EG70M/CA-40 G50, PSR-4000 GEC50/CA-40 G50 and PSR-9000 FLX501/CA-90 FLX501 are not subjected to any reflow as stated in the customer's design. The weight of the SVHC divided by the weight of the bare board is ≥ 0.1 wt.%. Note: These inks are reported by the manufacturer if they contain 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone in excess of 0.1 wt.% prior to reflow.
- 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one (CAS No 71868-10-5) – The SVHC is being reported if Taiyo ink PSR-4000 ME/CA-40 G23K, PSR-4000 MEH/CA-40 G23K, PSR-4000 MPHF/CA-40 MPHF, PSR-4000 BL01/CA-40 G24, PSR-4000 EG23/CA-40 G23K, PSR-4000 G23K/CA-40 G23K, PSR-4000 MH/CA-40 MH, PSR-4000 PF9-blue/CA-40 PF9, PSR-4000 PF9HF/CA-40 PF9HF, PSR-4000 RD5/CA-40 GF5, PSR-2000 ME8H/CA-25E, PSR-2000 CE823HF/CA-25 CE81, PSR-2000 BL600/CA-25 GL01(Cured Film), PSR-4000 MP/CA-40 MP(Cured), PSR-4000 BN / CA-40 BN(Cured), PSR-4000 GHP3X-1/CA-40 GHP3, PSR-4000 Z26-200PS/CA-40 Z26K, or TAMURA DSR-330S50-99G, DSR-330S50-99GHF, DSR-2200TT-19GHF, DSR-8000S22-17 set are required in the customer's design and the weight of the SVHC divided by the weight of the bare board is ≥ 0.1 wt.%.

Should there be any queries over the aforementioned information, please contact your AKMMeadville Electronics (Xiamen) Co., Ltd. Representative(s) accordingly.

Yours sincerely,



Wendy Yao

Manager, Quality & EHS Department

AKMMeadville Electronics (Xiamen) Co., Ltd.

2020年08月10日

致：安捷利美维电子(厦门)有限责任公司印刷电路板客户

关于：欧盟REACH声明

尊敬的客户：

安捷利美维电子(厦门)有限责任公司，及旗下全资子公司⁽¹⁾，作为“按图制作”的生产商，是按照客户指定要求生产未贴件的印刷电路板(光板)。我司属于非欧盟物品生产者，因此产品所用物质无需按照REACH规定进行注册登记，且产品在正常使用过程中不会释放既定的化学物质。

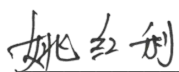
我司生产的光板：

- 满足REACH 3(3)关于“物品”的定义的同时也是“合成物品”；
- 不违反2020年6月24日更新的REACH附录XVII -限制物质 (<https://echa.europa.eu/substances-restricted-under-reach>);
- 就2020年6月25日更新的REACH候选物质清单(<https://echa.europa.eu/candidate-list-table>)，不含重量浓度在0.1%或如下潜在特殊情况时浓度更高的可报告的“高关注度物质”成分：
 - 铅(Pb, CAS号 7439-92-1) -若客户设计要求锡铅焊料且光板按重量分解后此高关注度物质重量大于等于0.1%，则其是可报告的。
 - 双酚A(BPA, CAS号 80-05-7) - 用客户指定的松下Megtron 4® (R-5725/R-5620)覆铜板或P片生产的光板，则此高关注度物质是可报告的。生产商报告Megtron 4通常所含BPA含量超过0.1%。
 - 氢化三联苯(CAS号 61788-32-7) - 若客户设计已要求德国汉高ECCObond® 45黑色环氧树脂片，且光板按重量分解后此高关注度物质重量大于等于0.1%，则其是可报告的。注：ECCObond 45仅用于软板和软硬结合版的设计中。
 - 二甲基乙酰胺(DMAc, CAS号 127-19-5) -使用客户指定的日立化成 MCL-HE-679G, GHA-679G，及杜邦软板基材®产品在复杂的情况下此高关注度物质是可报告的。有的软板基材通常是含有可报告的高关注度物质，但有些因为成像过程去铜成了可报告的，而有些则成了永不报告的。注：软板基材仅用于软板和软硬结合板的设计中。
 - 2-苄基-2-二甲基氨基-1-(4-吗啉苯基)丁酮(CAS号 119313-12-1) -若客户设计要求太阳油墨PSR-4000 EG70M/CA-40 G50, PSR-4000 GEC50/CA-40 G50, PSR-9000 FLX501/CA-90 FLX501且光板按重量分解后此高关注度物质重量大于等于0.1%，则其是可报告的。注：生产商报告当无回流焊时其油墨所含2-苄基-2-二甲基氨基-1-(4-吗啉苯基)丁酮含量超过0.1%。
 - 2-甲基-1-(4-甲硫基苯基)-2-吗啉基-1-丙酮(CAS号 71868-10-5) -若客户设计要求使用太阳油墨PSR-

4000 ME/CA-40 G23K, PSR-4000 MEH/CA-40 G23K, PSR-4000 MPHF/CA-40 MPHF, PSR-4000 BL01/CA-40 G24, PSR-4000 EG23/CA-40 G23K, PSR-4000 G23K/CA-40 G23K, PSR-4000 MH/CA-40 MH, PSR-4000 PF9-blue/CA-40 PF9, PSR-4000 PF9HF/CA-40 PF9HF, PSR-4000 RD5/CA-40 GF5, PSR-2000 ME8H/CA-25E, PSR-2000 CE823HF/CA-25 CE81, PSR-2000 BL600/CA-25 GL01(Cured Film), PSR-4000 MP/CA-40 MP(Cured), PSR-4000 BN / CA-40 BN (Cured), PSR-4000 GHP3X-1/CA-40 GHP3, PSR-4000 Z26-200PS/CA-40 Z26K, 或田村化研DSR-330S50-99G, DSR-330S50-99GHF, DSR-2200TT-19GHF, DSR-8000S22-17系列油墨, 且光板按重量分解后此高关注度物质重量大于等于0.1%, 则其是可报告的。

若贵司对此信息有任何疑问, 请联系贵司之安捷利美维电子(厦门)有限责任公司代表。

此致



姚红利

经理, 质量&环境健康安全部门

安捷利美维电子(厦门)有限责任公司

(1) 旗下全资子公司, 包括并不限于美维科技有限公司, 广州美维电子有限公司, 上海美维电子有限公司, 上海美维科技有限公司。