

For :

環保產品聲明書

Declaration for Restriction of the Use of Hazardous Substances in Products

為因應歐盟電子電氣設備中特定有害物質限制指令(EU RoHS, 2011/65/EU) 及(EU)2015/863、SONY SS-00259 (Rev. 20)第一級禁用物質等規定中關於 IC 產品環保限制物質之要求，本公司謹此聲明，本公司銷售且交付予 貴公司之本公司環保產品之環保限制物質限用情況如下列所示。本聲明書中所稱本公司環保產品係指本公司之綠色產品。本公司綠色產品則是指，於 IC 本體無 Taiwan 字樣時，IC 本體上最後一組識別碼之第一個字母係經本公司或本公司授權標示有“G”代號者，於 IC 本體記載有 Taiwan 字樣時，IC 本體上 Taiwan 字樣的前一組識別碼之第一個字母係經本公司或本公司授權標示有“G”代號者。

In response to the rules and regulations of the E.U. Directive Restriction of the Use of Certain Hazardous Substance in Electrical and Electronic Equipment (EU RoHS, 2011/65/EU) and (EU)2015/863, and the Level 1 of the SS-00259 Rev. 20 standards of Sony Corporation, to the extent such rules and regulations are applicable to IC products, Realtek hereby declares that the regulated restricted substances in our Green Package products, sold and delivered to your company(our Green Package products are products distinguished by an affix “G”, marks of which are made by Realtek or under Realtek’s authorization. Our Green Package products are products distinguished by an affix of “G” on the most left part of the last identification code marked on IC. In the event a “Taiwan” marking is made on our IC, the aforementioned identification code shall be the code marked right before the Taiwan marking.), are shown as follows:

* 綠色產品之環保限用物質符合以下規範 The regulated restricted substances in our Green Package products are shown as follows:

1. Heavy metals
 - a. Cadmium (Cd) and cadmium compounds..... < 5 ppm⁽¹⁾
 - b. Lead (Pb) and lead compounds (IC Body)..... < 100 ppm
Lead (Pb) and lead compounds (IC Lead finish plating) < 1000 ppm
 - c. Mercury (Hg) and mercury compounds..... < 100 ppm
 - d. Hexavalent chromium (Cr⁶⁺) compounds..... < 100 ppm
2. Brominated organic compounds
 - a. Polybrominated biphenyls (PBBs) < 1000 ppm
 - b. Polybrominated diphenylethers (PBDEs) < 1000 ppm
 - c. Tetrabromobisphenol A(TBBPA) < 1000 ppm
3. Chlorinated organic compounds
 - a. Polychlorinated biphenyls (PCB) 未刻意添加 Not Used⁽²⁾
 - b. Polychlorinated naphthalenes (PCN) 未刻意添加 Not Used
 - c. Polychlorinated terphenyls (PCT) 未刻意添加 Not Used
 - d. Chlorinated paraffins (CP) (including MCPP)..... 未刻意添加 Not Used
4. Trisubstituted organotin compounds
(including Tributyltin(TBT) compounds & Triphenyltin(TPT) compounds)..... 未刻意添加 Not Used
5. Asbestos..... 未刻意添加 Not Used
6. Specific Azo compounds..... 未刻意添加 Not Used
7. Formaldehyde (Except for IC marking ink)..... 未刻意添加 Not Used⁽³⁾
8. Polyvinyl chloride (PVC) and PVC blends..... 未刻意添加 Not Used
9. Ozone Depleting Substances (ODS) 未刻意添加 Not Used
10. Radioactive substances..... 未刻意添加 Not Used
11. Expanded Polystyrene (EPS) 發泡聚苯乙烯..... 未刻意添加 Not Used
12. Beryllium oxide (BeO) 氧化鈹 未刻意添加 Not Used
13. Phthalates 鄰苯二甲酸酯類(including DEHP,DBP,BBP,DIBP)..... 未刻意添加 Not Used
14. Perfluorooctane sulfonates (PFOS) 全氟辛烷磺酸..... 未刻意添加 Not Used⁽⁴⁾⁽⁵⁾
15. 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (CAS No.:3846-71-7)..... 未刻意添加 Not Used
16. Cobalt dichloride (CoCl₂) 氯化鈷..... 未刻意添加 Not Used
17. Dimethylfumarate (DMF) 富馬酸二甲酯..... 未刻意添加 Not Used
18. Dibutyltin (DBT) 二丁基錫化合物..... < 1000 ppm⁽⁶⁾
19. Dioctyltin (DOT) 二辛基錫化合物..... 未刻意添加 Not Used

20. Halogenated diphenyl methanes 鹵化二苯甲烷
- a. Monomethyltetrachlorodiphenylmethane (Ugilec 141)/ 單甲基四氯二苯基甲烷.. 未刻意添加 Not Used
 - b. Monomethyldichlorodiphenylmethane (Ugilec 121)/ 單甲基二氯二苯基甲烷..... 未刻意添加 Not Used
 - c. Monomethyldibromodiphenylmethane (DBBT)/ 單甲基二溴二苯基甲烷 未刻意添加 Not Used
21. Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)
 N-苯基苯胺與苯乙烯和2,4,4-三甲基戊烯的反應物..... 未刻意添加 Not Used
22. Red Phosphorus 紅磷..... 未刻意添加 Not Used
23. Halogen-Free 無鹵
- a. Br..... < 900 ppm
 - b. Cl..... < 900 ppm
 - c. Total concentration of Bromine (Br) + Chlorine (Cl)..... < 1500 ppm
24. The following 5 substances listed in TSCA section 6(h)
- a. Phenol, isopropylated phosphate (3:1) 異丙基化磷酸三苯酯(PIP(3:1))..... 未刻意添加 Not Used
 - b. Pentachlorothio-phenol(PCTP) 五氯苯硫酚..... 未刻意添加 Not Used
 - c. Decabromodiphenyl ether 十溴二苯醚..... 未刻意添加 Not Used
 - d. Hexachlorobutadiene 六氯丁二烯..... 未刻意添加 Not Used
 - e. 2,4,6-tris(tert-butyl)phenol 2,4,6-三叔丁基苯酚..... 未刻意添加 Not Used

附註 Remarks :

- (1) Solder ball 或 Solder paste 可能含有 20ppm 以下之 Cadmium，其為金屬不純物。
 No more than 20ppm Cadmium may be contained in the solder ball or solder paste due to impurity.
- (2) “未刻意添加”係指本公司未於某項環保產品中刻意的添加該特定之環保限用物質，或雖刻意添加該特定環保限用物質，其於該特定環保產品之殘留值，仍符合本聲明書明列之規範值或符合本公司環保政策標準。
 “Not Used” means such specific restricted substance is not intentionally added or introduced in our specific Green Package product, or that even the specific restricted substance is intentionally added, the amount of the residual of such restricted substance in that specific product is permitted under the specification cited in this Declaration or is in compliance with the rules and regulations of Realtek Environmental Policy.
- (3) 除了產品蓋印製程中所使用之墨水材質，其係刻意添加有甲醛之成分。
 Except for IC marking ink in which Formaldehyde is intentionally added or introduced during manufacturing process.
- (4) 除了封裝型態為 WLCSP 之產品，其錫銀凸塊製程過程中所使用之蝕刻材料，係刻意添加有 PFOS 之成分。
 Except for the ICs or products packaged under WLCSP, in which PFOS is intentionally added or introduced in etch material during bumping process.
- (5) 除了 IC 或產品製程中所使用之光阻及抗反射塗層成份材質，其係刻意添加有 PFOS 之成分。
 Except for the photoresists or anti reflective coatings, in which PFOS is intentionally added or introduced during IC or product's manufacturing process.
- (6) 除了封裝過程中使用到 substrate 之本公司環保產品，其基板材質製程中所使用之原材料，係含有二丁基錫化合物之成分。
 Except for the ICs or products packaged with substrate, in which Dibutyltin (DBT) is contained in raw material.
- (7) 本公司環保產品基本上符合本聲明書所列環保限制物質之規範，除非該項環保限制物質係屬產品生產、製造、測試，或其他非本公司得合理控制之因素所致之殘留或雜質。
 Our Green Package products covered by this Declaration are basically free from the restricted substances listed hereabove, except for the residues, or impurities arising from the production, manufacturing, or testing process, or from reasons beyond Realtek's reasonable control.

立聲明書人：

瑞昱半導體股份有限公司 Realtek Semiconductor Corporation

簽章 Signature：

簽署代表人 Printed Name： 顏光裕 KY Yen .

職稱 Title： 總經理 President .

有效期間 Effective Period： From Feb. 05, 2024 to Feb. 06, 2025.

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