



東莞市良泰實業有限公司-禁限用物質管制規範

Dongguan City Liang Tai Industries Co., Ltd.

Guide for Suppliers to the Liangtai List of Prohibited & Restricted Substances

維護/權責單位: 品保部

文件編號(Doc. No.): LT-MP-07

目的 Objective:

因應國際環保法規及客戶產品 HSF 之要求 (歐盟 2011/65/EU RoHS 指令、歐盟 94/62/EC 包裝材料指令、歐盟 2006/122/EC 全氟辛烷硫磺酸指令(PFOS)、無鹵素要求 Halogen-Free、歐盟 REACH 指令), 良泰『禁限用物質管制規範』, 明示禁、限用物質項目, 所有供應商及內部的採購、品管及研發團隊請務必配合, 共同遵守法令以及減輕對生態系統之危害。若有未盡事宜, 請以最新國際法規為標準。

Every business has a social responsibility to consider its environmental impact. The purpose of this guidance is to provide Dongguan City Liang Tai Industries suppliers, as well as our own procurement, quality control and R&D Team to understand hazardous substances management requirements including EU RoHS Directive, EU Packaging Directive, EU REACH Regulation.

Suppliers shall adhere to all applicable laws, regulations and customer requirements regarding prohibition or restriction of specific substances in products and manufacturing, including labeling for recycling and disposal.

範圍 Scope: 良泰產品使用之材料、包裝材料, 製程附屬材料等均適用之。

It's applicable to the related substances of Liang Tai's products that included raw materials and packaging materials in production and outsourcing processes.

定義 Definition :

限用物質: 材料組成成分中, 含有對人類及地球環境存在顯著影響之物質。

Restricted Substances: A material that has been designated as environmentally un-friendly and is not to be used if at all possible. The use of a restricted substance in any material requires notification.

禁用物質: 禁用物質: 被國際條約法令或客戶要求, 指在零件或部件的製造過程中, 不管是有意添加或是天然存在禁止使用的物質。

Prohibited Substances: A material that has been determined to be environmentally un-friendly and is subject to either a legal ban or a company or industry prohibition

允許濃度: 由於技術上的限制, 產品中允許可能含有環境關聯管理物質的最大濃度上限。

Maximum Concentration Value of a substance or element in a homogenous material (= mass of substance or element /mass of homogenous material) shall be tolerated based on the environment legal requirement of various countries, that is to say, (equal to or) above this value, the substance or element must be banned.

包裝材料: 運送或儲存過程中提供保護用的材料(例如: 紙箱、箔、襯墊、袋、收縮帶、膠帶/膠), 包含標籤使用的油墨及顏料, 但是由供應商再次使用或回收之包裝材料不在規範內。

Packing Materials (reels, carrier/cover tape, bags, boxes, labels, inks/dyes, foam, pallets, etc.)

HSF: 即 Hazardous Substance Free, 危害物質減免 (或無危害物質)。

Note: Material refers to any of the listed substances, chemicals compounds, polymers or elements.

禁、限用物質清單

(Substances prohibited / restricted from use in the product)

Apply to All Components and Materials

*Substances are chemical elements and their compounds.

項目 Item	物質 Substance	容許濃度 Permissible Concentration	參考法規 Reference
1	鉛(Pb)及其化合物 Lead (Pb) and Lead compounds	<90 ppm	California Proposition 65 EU REACH Regulation 86/677/EEC EU Directive 2011/65/EU Norway's PoHS

2	汞(Hg)及其化合物 Mercury (Hg) and Mercury compounds	N.D. (M.D.L.=2ppm)	EU REACH Regulation EU Directive 2011/65/EU, TCO 5.2
3	鎘(Cd)及其化合物 Cadmium (Cd) and Cadmium compounds	N.D. (M.D.L.=2ppm)	EU REACH Regulation, EU Directive 2011/65/EU, Norway's PoHS, EU Directive 98/101/EC
4	六價鉻(Cr6+) Chromium VI (Cr6+) Compounds	N.D. (M.D.L.=2ppm)	EU REACH Regulation, EU Directive 2011/65/EU
5	多溴聯苯及其化合物(PBBs) Polybrominated biphenyls	N.D. (M.D.L.=5ppm)	
6	多溴聯苯醚及其顯化物(PBDEs) Polybrominated diphenylethers	N.D. (M.D.L.=5ppm)	
7	鉛+汞+鎘+六價鉻 Pb+Cd+Hg+Cr6+	< 70 ppm 且 Cd 不得檢出	
8	氯(Cl)	<900ppm	IEC 61249-2-21:2003 JPCA-ES01:2003, IPC 4101
9	溴(Br)		
10	氯+溴(Cl + Br)		
11	全氟辛烷硫磺酸(PFOS) Perfluorooctane sulfonates	N.D. (M.D.L.=10ppm)	EU Directive 2006/122/EC Sony SS-00259 14th
12	全氟辛酸 Perfluorooctanoic acid (PFOA)	<10 ppm	Norway's PoHS Sony SS-00259 14 th
13	石棉及其化合物 Asbestos and Asbestos materials	N.D. (M.D.L.=1ppm)	JIG-101 Ed 4.0 EU REACH Regulation Sony SS-00259 14th
14	偶氮(Azo)化合物 Azo-bases chemicals	N.D. (M.D.L.=5ppm)	EU Directive 76/769/EEC, 2002/61/EEC, 2003/03/EEC Bedarfsgegenstände Verordnung Sony SS-00259 14 th
15	甲醛/福馬林 Formaldehyde	1ppm(1.2mg/Nm3)	JIG-101 Ed 4.0 Germany : Chem Verbots V Denmark : Danish Statutory Order No. 289 Sony SS-00259 14 th
16	二取代基有機錫化合物-備註 9	<1,000 ppm	Norway's PoHS EU Directive 89/677/EEC, 99/51/EEC
17	三取代基有機錫化合物-備註 9	N.D. (M.D.L.=0.03ppm)	Japan: Chem-sub Law*1 EU Directive 2009/425/EC Sony SS-00259 14 th
18	顯化鈹	N.D. (M.D.L.=10ppm)	Japan: Ind-safety Law*2 Sony SS-00259 14 th
19	鈹(Be)及其化合物(除顯化鈹外) Beryllium and its compounds	100 ppm	Japan: Ind-safety Law*2 Sony SS-00259 14 th

20	鎳(Ni)及其化合物 Nickel (Ni) and its compounds	N.D. (M.D.L.=2ppm)	EU Directive 94/27/EEC EU REACH Regulation
21	銻(Sb)及其化合物 Antimony (Sb) and its compounds	<1,000 ppm	JIG-101 Ed 4.0 EN 71 Part 3
22	多氯聯苯(PCBs)與多氯聯三苯(PCTS) Polychlorinated Biphenyls and Polychlorinated Terphenyls	N.D. (M.D.L.=10ppm)	EU REACH Regulation, 85/467/EEC, 91/173/EEC Germany: ChemVerbots V US:TSCA Stockholm Convention Sony SS-00259 14 th
23	多氯萘及其衍生物 (PCNs) Polychlorinated Naphthalenes and derivatives	N.D. (M.D.L.=10ppm)	EU REACH Regulation Sony SS-00259 14 th
24	聚氯乙烯(PVC)及氯乙烯及 PVC 其混合物 Polyvinyl chloride(PVC) and PVC blends	N.D. 不得檢出	JIG-101 Ed 4.0 Blue Angel (German Eco-label) TCO 5.2 (Swedish Eco-label) Sony SS-00259 14 th
25	富馬酸二甲酯(DMF) Dimethyl Fumarate	N.D. (M.D.L.=0.1ppm)	EU Directive 2009/251/EC Sony SS-00259 14 th
26	砷(As)及砷化合物 Arsenic(As) and Arsenic compounds		EU Directive 86/677/EEC Norway's PoHS EU REACH Regulation Sony SS-00259 14 th
27	紅磷與黃磷 Red Phosphorus and Yellow Phosphorus 磷及其化合物 Phosphorus(P) and its compounds (exclude Yellow Phosphorus及Red Phosphorus) 磷酸三(2-氯丙基)酯,磷酸三(2,3-二氯丙基)酯, 磷酸三(二甲苯)酯...	N.D. 不得檢出	Japan: Industrial Safety and Health Law, Air Pollution Control Law, Fire Protection Law Sony SS-00259 14 th
28	氯化石蠟/氯代烷氫 (SCCP,C10~13) Chlorinated Paraffins	N.D. (M.D.L.=10ppm)	EU REACH Regulation Sony SS-00259 14 th
29	鄰苯二甲酸酯類化合物 (Phthalate-DEHP,BBP,DBP,DNOP,DINP,DIDP,DIBP)	N.D. (M.D.L.=10ppm)	Norway's PoHS JIG-101 Ed 4.0 Sony SS-00259 14 th EU Directive 2011/65/EU
30	類持久性有機污染物 (POPs)	N.D. (M.D.L.=10ppm)	Stockholm Convention OSPAR Germany: chemVerbotsV
31	類定苯並三氮唑 Specific Benzotriazole	N.D. (M.D.L.=10ppm)	Japan: Chem-sub Law*1 Sony SS-00259 14 th
32	N-甘膦酸 Glyphosate	N.D. 不得檢出	
33	雙(氯化牛油烷基)二甲基氯化胺 DTDMAC 二硬脂基二甲基氯化胺 DODMAC/DSDMAC 二 (硬化牛油)二甲基氯化胺 DHTDMAC	Total: <1,000 ppm	Norway's PoHS

34	臭層破壞物質 氟氯碳化物 Chlorofluorocarbons(CFC's) 氟氯烴 化物 Hydrochlorofluorocarbons(HCFC's) 賴龍 (Halons) 溴氟烴化物 (HBFC's) 氫氟烴類化合物(HFC) & (PFC)...等	N.D. (M.D.L.=1ppm)	Montreal Protocol, AnnexA, B, C US : 1990 Clean Air Act JIG-101 Ed 4.0 Sony SS-00259 14 th
35	脂肪族氯碳氫化合物 CHCs Chlorinated hydrocarbon	N.D. (M.D.L.=1ppm)	EU Directive 94/60/EEC
36	鹵素阻燃劑(TBBP-AāHBCDD) Halogenate flame retardants)	N.D. (M.D.L.=5ppm)	JIG-101 Ed 4.0 Blue Angel (German Eco-label) TCO 5.2 (Swedish Eco-label) Norway's PoHS Market Requirement & Green peace Sony SS-00259 14 th
37	多氯酚 (PCPS) Ploycholophenol	N.D. (M.D.L.=10ppm)	EU REACH Regulation, OSPAR, Norway's PoHS
38	放蕩性物質 Radioactive Substances	N.D. 不得檢出	JIG-101 Ed 4.0 Japan: Nuclear material reactors*3, JGPSSI
39	六氯丁二烯 Hexachlorobula-1,3-diene	N.D. (M.D.L.=1ppm)	Japan: Chem-sub Law*1
40	硒及其化合物 Selenium (Se) and its compounds	<1,000 ppm	
41	高氯酸鹽 Perchlorates	N.D. 不得檢出	JIG-101 Ed 4.0
42	鹵化二苯甲烷 Halogenated diphenyl methanes	N.D. (M.D.L.=10ppm)	EU REACH Regulation
43	4-硝基二苯胺及其鹽類 4-Nitrobiphenyl and its salt	N.D. 不得檢出	Japan: Industrial Safety and Health Law, Air Pollution Control Law,
44	雙-(氯甲基)二醚 Bis(chloromethyl)ether	N.D. (M.D.L.=1ppm)	Japan: Industrial Safety and Health Law
45	烷基酚 Alkylphenols	N.D. (M.D.L.=10ppm)	OSPAR 2003/53/EC
46	壬基苯酚相關物質 Nonylphenol /ethoxylates (NP/NPEs) and related substances	N.D. (M.D.L.=10ppm)	OSPAR 2003/53/EC
47	六氯環己烷(HCH) Hexachlorocyclohexaneisomers	N.D. (M.D.L.=1ppm)	OSPAR
48	雙酚 A Bisphenol A	<50 ppm PC material <250 ppm	Norway's PoHS
49	2,4,6-第三丁酚 2,4,6-Tertiarybutylphenol	N.D. (M.D.L.=10ppm)	Japan: Chem-sub Law*1
50	苯二胺類化合物 N-p-phenylenediamine	N.D. (M.D.L.=10ppm)	Japan: Chem-sub Law*1
51	三氯沙 Triclosan	N.D. (M.D.L.=10ppm)	Norway's PoHS

52	多環芳烴(PAHS) Polyaromatic Hydrocarbons	<10 ppm	OSPAR EU REACH Regulation German: LMBG Sony SS-00259 14 th
53	氯化鈷 Cobalt dichloride	N.D. 不得檢出	EU REACH Regulation Sony SS-00259 14 th
54	過氯酸鹽 Perchlorates	N.D. (M.D.L.=0.006ppm)	Sony SS-00259 14 th
55	N-苯基苯胺與苯乙烯和 2,4,4-三甲基戊烯的反應物 Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)	N.D. 不得檢出	Sony SS-00259 14 th
56	二正辛基-雙(2-乙基己基巰基乙酸酯)錫 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecan oate (DOTE)	<1000 ppm	EU REACH Regulation Sony SS-00259 14 th
57	二正辛基-雙(2-乙基己基巰基乙酸酯)錫和單辛基-三(2-乙基己基巰基乙酸酯)錫的反應物 Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecan oate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-ox o-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE) <	<1000 ppm	EU REACH Regulation Sony SS-00259 14 th
58	鄰苯二甲酸二己酯(支鏈和直鏈) 1,2- Benzenedicarboxylic acid, dihexyl ester, branched and linear	<1000 ppm	EU REACH Regulation Sony SS-00259 14 th
59	苯並三唑(紫外線吸收劑 328) 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	<1000 ppm	EU REACH Regulation Sony SS-00259 14 th

供應商責任:

供應商需對良泰確保其企業責任及禁、限用物質相關資訊揭露之即時性與正確性。

Supplier Obligations:

All suppliers to Liangtai are required to disclose information regarding products/parts/material supplied to Liangtai that contain any substances included in the list.

Information needs to be reported to Liangtai:

Declaration of substances included in the list, including

Product name/identity/weight

Part name/identity/weight

Material name (e.g. name of alloy, polymer or other mixture)

Concentration of substance in part or if no parts are present in the product (percentage per weight).