

## 盛群禁限用管理物质标准

### Holtek Banned and Restricted Substance List and its Threshold

#### 一、目的

盛群半导体股份有限公司为因应国际法律规章及客户要求，特制定此表代表本公司产品符合的环境相关物质与规格，以确保产品不含有伤害人体的有害物质。

#### A. Purpose

In order to comply with the international regulations for the banned and restricted substances and meet the customers' requirements, Holtek makes this substances list and defines the threshold of each item to ensure that our products can meet the standards in the international regulations and be free of the hazardous substances that may be harmful to humans.

#### 二、盛群禁限用物质管限制值

#### B. Definition of Prohibited and Restricted Substances and their Threshold

**Table 1.**

物质名称 Substances	限制值 Threshold (ppm)
镉及镉化合物 Cadmium and cadmium compounds (Cd)	100ppm in Plastics
铅及铅化合物 Lead and lead compounds (Pb)	100ppm in Plastics 1000 ppm in Solders
汞及汞化合物 Mercury and mercury compounds(Hg)	1000ppm
六价铬化合物 Hexavalent chromium compounds(Cr+6)	1000ppm
镍及镍化合物 Nickel and nickel compounds(Ni)	1000ppm
砷及砷化合物 Arsenic and arsenic compounds(As)	100ppm
铋及铋化合物 Bismuth and bismuth compounds(Bi)	1000ppm
锑及锑化合物 Antimony and antimony compounds(Sb)	1000ppm
多溴联苯 (PBB) Polybrominated biphenyls	5ppm
包含十溴联苯醚(DecaBDE)多溴二苯醚(PBDE)	5ppm
四溴丙二酚(TBBP-A) Tetrabromobisphenol-A	1000ppm
六溴环十二烷(HBCDD) Hexabromocyclododecane	1000ppm
其他有机溴化合物 Other brominated organic compounds	1000ppm
多氯联苯(PCB) Polychlorinated biphenyls	Prohibited
多氯联萘(PCN) Polychlorinated naphthalenes	Prohibited
聚氯三联苯(PCT) Polychlorinated terphenyls	Prohibited
短链型氯代烷烃(SCCP) Short-chain chlorinated paraffins	Prohibited
氯化烷烃(氯化石蜡)(CP) Chlorinated Paraffins	1000ppm
聚氯乙烯(PVC)以及聚氯乙烯混合物 Polyvinyl chloride and PVC blends	Prohibited
其他有机氯化物 Other chlorinated organic compounds	1000ppm

物质名称 Substances	限制值 Threshold (ppm)
三取代基有机锡化合物（三丁基锡化合物、三苯基锡化合物） Trisubstituted organotin compounds (Triphenyl tin compounds(TPT)、Tributyl tin compounds(TBT))	Prohibited
石棉 Asbestos	Prohibited
特定偶氮化合物 Specific Azo compounds	Prohibited
甲醛 Formaldehyde	Prohibited
发泡聚苯乙烯（EPS） Expanded Polystyrene	Prohibited
臭氧危害物质 (ODS) Ozone depleting substances	Prohibited
放射性物质 Radioactive substances	Prohibited
氧化铍 Beryllium oxide	Prohibited
铍及其化合物(Be)（铍青铜Beryllium copper）	To Be Observed
特定邻苯二甲酸盐（DEHP、DBP、BBP、DINP、DIDP、DNOP、DNHP、Di-(2-methoxyethyl) phthalate、other phthalates）	1000ppm
邻苯二甲酸二异壬酯、邻苯二甲酸二异癸酯、邻苯二甲酸二正辛酯、邻苯二甲酸二己酯、 Di-isononyl phthalate, Di-isodecyl phthalate, Di-n-octyl phthalate, Di-n-hexyl phthalate, 邻苯二甲酸二（C6-8支链）烷基酯、富C7（DIHP） 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich, 邻苯二甲酸二（C7-11支链与直链）烷基酯（DHNUP） 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters, 邻苯二甲酸二甲氧乙酯（DMEP） Bis(2-methoxyethyl) phthalate	1000ppm
氢氟碳化合物（HFC）、全氟化碳（PFC）	Prohibited
硒及硒化合物 Selenium and selenium compounds (Se)	1000ppm
非特定溴系阻燃剂（除PBB、PBDE类） Non-specific brominated flame-retardants（excluding PBB、PBDE）	To Be Observed
全氟辛烷硫磺酸(及其盐) (PFOS) Perfluorooctane sulfonates	1000 ppm in parts 50 ppm in preparations
全氟辛烷酸 (PFOA)及其盐类与脂类 Perfluorooctyl acid and individual salts and esters of PFOA	50ppm
特定苯并三氮唑 Specific benzotriazole	Prohibited
卤化二苯基甲烷 Halogenated diphenyl methanes	Prohibited
双酚A (Bisphenol-A; BPA)	50ppm
气味物质(二甲苯麝香及酮麝香) Fragrance substance (Musk xylene and Musk ketone)	500ppm
界面活性剂 (DTDMAC,DODMAC/DSDMAC and DHTDMAC)(Surfactants)	1000ppm
五氯酚 (PCP) Pentachlorophenol	1000ppm
三氯沙 Triclosan	10ppm
二氯化钴 Cobalt dichloride	Prohibited
卤素 (Halogen) 氯(Cl)、溴(Br)	Cl < 900ppm (0.09%) Br < 900ppm (0.09%) Cl+Br < 1500ppm (0.15%)

物质名称 Substances	限制值 Threshold (ppm)
富马酸二甲酯 (dimethylfumarate; DMF)	0.1ppm
多环芳香烃化合物 (PAHs) Polycyclic Aromatic Hydrocarbons	Prohibited
二丁基锡化合物 (DBT) Dibutyltin compounds	Prohibited
二辛基锡化合物 (DOT) Dioctyltin compounds	Prohibited
磷酸三硬脂精 (2-氯二乙硫醚)(TCEP)Tris(2-chloroethyl) phosphate	1000ppm
三氯化二砷、五氧化二砷Diarsenic trioxide, Diarsenic pentaoxide	1000ppm
硼酸、特定硼酸钠Boric acid, specific sodium borates	To Be Observed
4 - (1,1,3,3 - 四甲基丁基) 苯酚 4-(1,1,3,3-tetramethylbutyl) phenol	1000ppm
氖代双 (2 -甲氧基乙基) 醚 Bis(2-methoxyethyl) ether	1000ppm
N', N-二甲基乙酰胺 (DMAC) N,N-dimethylacetamide	1000ppm
包材类 Packaging Materials : 符合包装及包装废弃物指令(94/62/EC)规定 Meet the requirement of 94/62/EC directive.	Cd+Pb+Hg+Cr <sup>6+</sup> <100ppm

Table 2.

◎ 产品内所含的高关注物质 SVHC in Holtek's product, <=1000ppm	
高关注物质名称 Anticipated SVHC Substance	EC 号码 EC No.
蒽 (Anthracene)	204-371-1
4,4'-二胺基二苯甲烷 (4,4'-Diaminodiphenylmethane)	202-974-4
二氯化钴 Cobalt dichloride	231-589-4
五氧化二砷 Diarsenic pentaoxide	215-116-9
三氧化二砷 Diarsenic trioxide	215-481-4
重铬酸钠 Sodium dichromate	234-190-3
内二甲苯麝香 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4
邻苯二甲酸二丁酯 (DBP)Dibutyl Phthalate (DBP)	201-557-4
邻苯二甲酸二(2-乙基己基)酯 Bis (2-ethyl(hexyl)phthalate) (DEHP)	204-211-0
邻苯二甲酸丁酯苯甲酯(BBP) Benzyl butyl phthalate (BBP)	201-622-7
六溴环十二烷 及其异构物Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α - HBCDD, β-HBCDD, γ-HBCDD)	247-148-4 and 221-695-9
短链氯化石蜡 Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCPs)	287-476-5
氧化三丁锡 Bis(tributyltin) oxide (TBTO)	200-268-0
砷酸铅 Lead hydrogen arsenate	232-064-2
三乙砷酸酯 Triethyl arsenate	427-700-2
二硝基甲苯 2,4-Dinitrotoluene	204-450-0

高关注物质名称 Anticipated SVHC Substance	EC 号码 EC No.
蒽油 Anthracene oil	292-602-7
蒽油、蒽糊、轻油 Anthracene oil, anthracene paste, distn. Lights	295-278-5
蒽油、蒽糊、蒽馏分离液 Anthracene oil, anthracene paste, anthracene	295-275-9
蒽油、含蒽量少 Anthracene oil, anthracene-low	292-604-8
蒽油、蒽糊 Anthracene oil, anthracene paste	292-603-2
邻苯二甲酸二异丁酯 Diisobutyl phthalate	201-553-2
硅酸铝、陶瓷耐火纤维 Aluminosilicate, Refractory Ceramic Fibres	650-017-008-a
硅酸铝氧化锆、陶瓷耐火纤维 Zirconia Aluminosilicate, Refractory Ceramic	650-017-008-b
铬酸铅 Lead chromate	231-846-0
红色钼铬酸铅硫酸盐 Lead chromate molybdate sulfate red (C.I. Pigment Red	235-759-9
黄色硫化铬酸铅 Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7
三-(氯乙基)磷酸酯 Tris(2-chloroethyl)phosphate	204-118-5
焦煤沥青、高温 Pitch, coal tar, high temperature	266-028-2
三氯乙烯 Trichloroethylene	201-167-4
硼酸 Boric acid	233-139-2 and 234-343-4
硼砂 Disodiumtetraborate,anhydrous	215-540-4
水合硼酸钠 Tetraboron disodium heptaoxide, hydrate	235-541-3
铬酸钠 Sodium chromate	231-889-5
铬酸钾 Potassium chromate	232-140-5
重铬酸铵 Ammonium dichromate	232-143-1
重铬酸钾 Potassium dichromate	231-906-6
丙烯酰胺 Acrylamide	201-173-7
硫酸钴 (II) Cobalt(II) sulphate	233-334-2
硝酸钴 (II) Cobalt(II) dinitrate	233-402-1
碳酸钴 (II) Cobalt(II) carbonate	208-169-4
醋酸钴 (II) Cobalt(II) diacetate	200-755-8
2-甲氧基乙醇 2-Methoxyethanol	203-713-7
2-乙氧基乙醇 2-Ethoxyethanol	203-804-1
三氧化铬 Chromium trioxide	215-607-8
由三氧化铬和其他低聚物形成的酸类:铬酸/ 重铬酸/ 铬酸和重铬酸的低聚物 Acids generated from chromium trioxide and their oligomers: Chromic acid/ Dichromic acid/ Oligomers of chromic acid and dichromic acid	231-801-5 and 236-881-5
乙二醇乙醚醋酸酯 2-Ethoxyethyl acetate	203-839-2
铬酸锶 strontium chromate	232-142-6
邻苯二甲酸二 (C7-11支链与直链) 烷基酯 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6
联氨 Hydrazine	206-114-9
N-甲基吡咯烷酮 1-methyl-2-pyrrolidone	212-828-1
1,2,3-三氯丙烷 1,2,3-Trichloropropane	202-486-1

邻苯二甲酸二 (C6-8支链与直链) 烷基酯, 富C7 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1
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### 注意事项 Notes:

盛群产品所使用的物料中符合欧盟《化学物品的注册、评估、授权与限制法令》1907/2006/EC (REACH)要求的高度关注物质(SVHC)。当 SVHC 定义的物质含量 $\geq 0.1\%$ 与 $\geq 1$  ton/year, 盛群会揭露相关讯息, 以符合欧盟法规要求。

All raw materials that are used inside Holtek's products meet the SVHC (Substances of Very High Concern) requirements of REACH, 1907/2006/EC (Registration, Evaluation, Authorisation of Chemicals). When the substances defined in the SVHC is  $\geq 0.1\%$  and  $\geq 1$  ton/year, Holtek will disclose the related information to meet the requirements of European Union regulations.