

歌尔股份有限公司有害物质管理政策

Goertek Inc. Hazardous Substance Management Policy

一、目的 / Purpose

明确产品和生产制程中所含有害物质的限制，确保歌尔股份有限公司(以下简称“歌尔股份”“公司”或“我们”)的产品符合相关法律法规、环保标识及客户的要求。

To define restrictions on hazardous substances in products and manufacturing processes, ensuring that products from Goertek Inc. (abbreviated as "the Company" "we") comply with relevant laws, regulations, environmental labeling requirements, and customer specifications.

二、范围 / Scope

适用公司或公司委托设计、制造、销售并且发布的产品；同样适用于由客户委托公司设计、制造、销售或发布的产品中，由客户提供的零件和材料除外，需参照客户单独要求执行。

Applies to products designed, manufactured, sold, or released by the Company or its authorized partners. This also applies to products designed, manufactured, sold, or released by the Company or its authorized partners provided by customers, which should adhere to customer-specific requirements.

三、定义 / Definitions

限制物质：限制使用的化学物质或材料。不管化学物质或材料是有意添加、含有或杂质，均需要满足限制要求。限制的种类有禁止使用、ND（不可检测）、小于某限制含量。

Restricted substances: Restricted substances are chemicals or materials whose use in products is limited, whether intentionally added, contained, or exist in "as impurities" or "as impurities" ("Non-use"), non-detectable levels ("ND"), or maximum concentration limits.

管理物质：禁止在研发、生产、销售过程中使用，但需提前告知客户并记录在案。客户未收到通知或未提供豁免信息，如不报告则视为不含有。

Restricted substances: These substances are permitted for use but must be formally disclosed to Goertek in writing. Absence of disclosure will be interpreted as confirmation that the substance is not present.

产品：指歌尔研发、生产、销售的电子产品、零部件，也指构成歌尔电子产品的零部件、原材料、包装材料、辅料等。

Product: Product refers to electrical and electronic equipment and components developed, manufactured, or sold by Goertek, including their constituent parts, raw materials, packaging materials, auxiliary materials, etc.

物质：

在研发、生产、销售过程中使用，但需提前告知客户并记录在案。客户未收到通知或未提供豁免信息，如不报告则视为不含有。

Substance: A substance is a chemical element or its compounds, either naturally occurring or produced through manufacturing processes, including stabilizers and process-related impurities, but excluding non-volatile solvents that do not affect the stability or composition

物品: 指由一种或多种物质和（或）配制品组成的物体。在生产过程中，它被赋予了特定的形状、外观或设计，比它的化学成分有更多的最终功能。

Article: An object consisting of one or more substances and/or preparations. It means an object ~~in which the physical, chemical, and/or mechanical properties are determined by the composition of the substances and the way they are combined, and which has a greater degree than does its chemical composition.~~

均质材料: 成分均匀的材料或由多种材料组合而成的材料，无法通过机械操作（如拧开、切割、碾压、破碎、研磨等）拆解或分离成不同的材料。

Homogeneous material: ~~on throughout or a material, consisting of a~~ A material of uniform composition consisting of a combination of materials, that cannot be disjointed, disaggregated, or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive ~~etc.~~

CAS No.: 是化学文摘服务社制定的化学物质登记号，是一种物质的唯一数字识别号码。

CAS No.: ~~is a unique numerical identifier assigned to chemical substances by the Chemical Abstract Service (CAS).~~

含有:

~~残留情况，包括在产品加工过程、物流过程中工厂间的混入、转移或附着后残留的情况。~~

Contained: Whether intentional or not, add, fill, mix and/or paste substances into/onto materials, parts and components of product, including unintentional mix and/or transfer attachment of substances to product during manufacturing process and logistics process.

杂质: ~~指通过现有技术手段无法完全去除的物质，或者在现有技术手段下，在天然材料中存在的，但技术上无法去除的物质。~~

Impurity: A substance contained in natural material, but which cannot be completely removed ~~by technical means in the refining process, or which separated in the reaction process, but cannot be~~ completely removed technically.

豁免: 指根据欧盟 RoHS 指令，在特定应用中允许存在或高于检出浓度的有害物质，及歌尔基于法律法规、国际/国家标准或客户标准批准使用的有害物质。

Exemptions: Substances that are allowed to be present at or above detection ~~for certain~~ specific applications per the RoHS Directive, and substances approved by Goertek base on laws & regulations, international/national standard, and industrial specification.

禁止使用: 歌尔规定的限制物质，禁止有意添加到产品中，且测试时不能检测到物质在均质材料中的含量。

Non-use: Listed substances by Goertek must not be intentionally added to the product, and their concentration in homogeneous materials must not exceed the method detection limit.

四、管理标准 / Management Standards

公司内部的有害物质管理标准涵盖法律法规的要求，并严于法规要求，包括 RoHS、卤素、REACH、CP65、POPs、电池指令、包装指令、VOCs 等，并结合 IECQ QC080000 体系 ~~建立有害物质过程管理的~~ ~~体系。中心有害物质清单和管控清单是有害物质~~

~~The Company internal hazardous substance management standards cover the requirements for~~

laws and regulations and are stricter than regulatory requirements including RoHS, halogen, REACH, CP65, POPs, battery directive, packaging directive, VOCs, etc. Integrated with the IECQ OC080000 HSPM (Hazardous Substance Process Management) system requirements, these standards ensure comprehensive control of hazardous substances in both products and manufacturing processes.

我们持续关注有害物质法律法规的更新状态，并对客户提出的有害物质相关要求进行了收集，及时识别易出现有害物质的原材料及需要重点审核项。

We continuously monitor updates to hazardous substance regulations and collect customer-specific requirements regarding identification of high-risk raw materials prone to containing hazardous substances.

公司已识别出并严格遵守的有害物质

The Company has identified and strictly complies with various international standards and requirements related to hazardous substances.

名称		地区
<ul style="list-style-type: none"> • 《电器电子产品有害物质限制 • 《工业防护涂料中有害物质限 • 《胶粘剂挥发性有机化合物限 • 《清洗剂挥发性有机化合物含 • 《油墨中可挥发有机化合物 (中国
<ul style="list-style-type: none"> • 《限制在电子电气设备中使用某些有害成分的指令 (RoHS)》 (2011/65/EU) • 《报废电子电气设备指令 (WEEE)》 (2012/19/EU) • 《包装和包装废弃物指令及其修订版》 (2018/852/EU) • 《电池指令》 ((EU)2023/1542) • 《欧盟·关于化学品注册、评估、授权和限制的法规及其修正案 (REACH)》 ((EU) 2007/3006) • 《欧盟·持续性有机污染物 (POPs)》 (2019/1021/EU) • 《法国 AGEC 法规-关于打击浪费和循环经济的法令》 (No.2020-105) • 《瑞典电子电气产品化学税法案》 (2016:1067) • 《欧洲臭氧破坏物质禁用指令》 (2037/2000/EC) 		

名称	地区
<ul style="list-style-type: none"> • 《消费性产品中禁用特定有害物质 (PoHS)》(2021) 	挪威
<ul style="list-style-type: none"> • 《国际电工委员会·限制印刷电路板和互连结构的材料的卤素含量》(IEC 61249-2-21) • 《电子工业的材料声明标准》(IEC 62474-2018) • 《蒙特利尔破坏臭氧层物质管制议定书》 • 《全球汽车有害物质清单》 • 《斯德哥尔摩公约》 	其他

Regulations & Standards	Region
<ul style="list-style-type: none"> • Administrative Measures on the Restriction of the Use of Hazardous Substances in Electrical and 	

Regulations & Standards	Region
<ul style="list-style-type: none">• International Electrotechnical Commission - Limitation of Halogen Content in Materials for Printed Boards and Other Interconnecting Structures (IEC 61249-2-21)• Material Declaration for Products of and for the Electrotechnical Industry (IEC 62474-2018)• Montreal Protocol on Substances that Deplete the Ozone Layer• Global Automotive Declarable Substance List (GADSL)• Stockholm Convention	Others

exemption clauses reference: <https://eurlex.europa.eu>. Customer-specific requirements always take precedence and will be fully met.

我们每年接受客户关于有害物质的审核，并完成我们内部、外部供应商及加工厂的有害物质的审核，针对审核发现进行优化及改善。对于不符合的项目，要求责任单位限期完成整改。

按照《产品中的限制物质》、《产品中的管理物质》、《制程限制物质》禁止包括，但不限于以下所示物质的管控，参见附录 1、附录 2、附录 3。

Since we source components from a broad range of suppliers while conducting internal audits and external supplier and processor evaluations. All audit findings drive continuous optimization and improvement. Non-conformities require responsible parties to implement corrective actions within defined timelines.

Our substance control framework, structured under *Restricted Substances in Products*, *Managed Substances in Products* and *Process-Restricted Substances*, covers – but is not limited to – the materials specified in *Appendix 1, 2, and 3*.

附录 1: 产品中的限制物质 / Appendix 1: Restricted Substances in Products

限制物质	CAS号	
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限制物质	CAS号	限值	适用范围	参考法规/标准
重金属 (铅+镉+汞+六价铬)	7440-43-9 18540-29-9 7439-97-6 7439-92-1	80ppm	包装材料	欧盟包装指令
多溴联苯 PBBs	59536-65-1 67774-32-7 36355-01-8 27858-07-7 13654-09-6 等	400ppm	所有材料	EU RoHS 指令 REACH 附录 XVII
多溴联苯醚 PBDEs	1163-19-5 32534-81-9 32536-52-0 1163-19-5 等	单项 <10ppm, 总和 <500ppm	所有材料	EU RoHS 指令 欧盟 POPs 法规
	/	单项 <100ppm, 加和 <1000ppm	所有材料	EU RoHS 指令 REACH 附录 XVII 加州 65 号提案
三氧化二锑	1309-64-4	900ppm	所有材料	加州 65 号提案
偶氮染料	/	20ppm	纺织品、皮革、染料或着色剂	REACH 附录 XVII GB 20400 皮革和毛皮有害物质限量 GB 18401 国家纺织产品基本安全技术规范
石棉	12001-28-4 12172-73-5 77536-67-5 77536-66-4 77536-68-6 12001-29-5 132207-32-0 1332-21-4	禁止使用	所有材料	REACH 附录 XVII
氧化铍	1304-56-9	ND	所有材料	加州 65 号提案 IEC 62474
双酚 A BPA	80-05-7	50ppm ND	所有材料 热敏纸	加州 65 号提案 REACH 附录 XVII
富马酸二甲酯 DMF	624-49-7	0.1ppm	所有材料	REACH 附录 XVII 2012/48/EU
中链氯化石蜡 MCCP	85535-85-9	禁止使用	所有材料	REACH 附录 XVII
短链氯化石蜡 SCCPs	85535-84-8 84082-38-2 71011-12-6 85536-22-7 61788-76-9 108171-26-2	禁止使用	所有材料	欧盟 POPs 法规 REACH 法规
二氯化钴	7646-79-9 7791-13-1	禁止使用	所有材料	REACH 法规 SVHC

限制物质	CAS号	限值	适用范围	参考法规/标准
十溴二苯乙烷 DBDPE	84852-53-9	禁止使用	所有材料	加拿大环境保护法
卤化戴奥辛/呋喃	/	ND	所有材料	欧盟 POPs 法规 加州 65 号提案
氯化二苯基甲烷 对象为单甲基-四氯 二苯基甲烷, 单甲 基-二氯二苯基甲 烷, 单甲基- 苯基甲烷	76253-60-6 81161-70-8 99688-47-8	禁止使用	所有材料	REACH 附录 XVII
六溴环十二烷及主 要非对映异构体 HBCDD	25637-99-4 3194-55-6 -50-6 -51-7 -52-8	ND	所有材料	欧盟 POPs 法规 挪威 PoHS 指令
六氯三苯	87-68-3	禁止使用	所有材料	欧盟 POPs 法规 美国有毒物质控制法案 TSCA
六氯环己烷	608-73-1 58-89-9 319-84-6 319-85-7 多个	禁止使用	所有材料	欧盟 POPs 法规
六氯苯 HCB	118-74-1	10ppm	所有材料	欧盟 POPs 法规
1 至 7 芳香环的芳 香烃矿物油 MOAH	无	1ppm (3~7 环 MOAH) 1000ppm (1~7 环 MOAH)	包装材料中的油墨	法国 AGECE 法规
16 至 35 个碳原子 组成的饱和烃矿物 油 MOSH	无	1000ppm	包装材料中的油墨	法国 AGECE 法规
镍及其化合物	7440-02-0 多个	镍释放: 0.2 g/cm ² / week	长时间接触皮肤的材料 或部件	REACH 附录 XVII
臭氧层破坏物质 ODCs	/	禁止使用	所有材料	蒙特利尔议定书 欧洲臭氧破坏物质禁用指 令
多环芳烃 PAHs	/	单个物质 <0.2ppm, 总量<1ppm	放入口中的材料和和皮 肤长时间接触的玩具材 料 (超过 30 秒) 3 岁以 下儿童使用	REACH 附录 XVII 德国 GS: AfPS GS EN 71-1:2011 PAK

限制物质	CAS号	限值	适用范围	参考法规/标准
		儿童产品: 单个物质 <0.2ppm, 总量<5ppm 其他产品: 单个物质 <0.5ppm, 总量 <10ppm	未包含在类别 1 中和皮 肤会长时间接触 (超过 30 秒), 或者和皮肤反 复短时间接触的材料。	
		儿童产品: 单个物质 <0.5ppm, 其他产品: 单个物质 <1ppm	未包含在类别 1 和 2 中, 和皮肤短期接触 (不超过 30 秒) 的材 料	

邻苯二甲酸酯 (PCEP 及其
盐/酯类

87-86-5,
85380-74-1

限制物质	CAS号	限值	适用范围	参考法规/标准
2-[2-羟基-3,5-二(1,1-二甲基丙基苯基)]-2H-萘并[2,1-b]呋喃 UV-328	25973-55-1	1ppm	所有材料	斯德哥尔摩公约
四溴双酚 A TBBP-A	79-94-7	900ppm	有机材料	挪威 PoHS 指令 华盛顿州儿童产品安全法 加州 65 号提案 IEC 62474
三取代基有机锡化合物	/	ND	所有材料	REACH 附录 XVII 日本化审法 REACH
其他有机锡化合物	/	1000ppm	所有材料	

Restricted Substances	CAS No	Concentration Limit	Application Scope	References
		400ppm	Solder (Metal alloys only) and inorganic materials (metal, ceramic, glass)	
Mercury and its compounds	7439-97-6 etc.	5ppm	Plastic, paint, ink, nonmetal and Non-ceramic material	EU Directive 2011/65/EU REACH ANNEX XVII EU battery directive California Section 65
		Non-use	Cell	
		100ppm	Other materials	
Hexavalent chromium compounds	18540-29-9 etc.	ND	Textile	EU Directive 2011/65/EU
		Negative	Metal (include metal surface treatment)	
		400ppm	Other materials	
		3ppm	Leather: metalwork lanyard, case etc.	REACH ANNEX XVII
Heavy Metals (Cd + Cr (VI) + Hg + Pb)	7440-43-9 18540-29-9 7439-97-6 7439-97-1	80ppm	Packaging	EU Directive on packaging and packaging waste
Polybrominated Biphenyls (PBBs)	59536-65-1 67774-32-7 36355-01-8 27858-07-7 13654-09-6 etc.	400ppm	All materials	EU Directive 2011/65/EU REACH ANNEX XVII
Polybrominated Diphenyl Ethers (PBDEs)	1163-19-5 32534-81-9 32536-52-0 1163-19-5 etc.	Individually 10ppm, 500 ppm for sum of total	All materials	EU Directive 2011/65/EU EU POPs
Phthalates	/	Individually 100ppm, 1000 ppm for sum of total	All materials	EU Directive 2011/65/EU REACH ANNEX XVII California Section 65
Antimony Trioxide	1309-64-4	900ppm	All materials	California Section 65
Azodyes	/	20ppm	Textile, leather, dye or coloring	REACH ANNEX XVII GB 20400-2006 Leather and fur-Limit of harmful matter GB 18401-2010 China National General Safety Technical Code for Textile Products

Restricted Substances	CAS No	Concentration Limit	Application Scope	References
Asbestos	12001-28-4 12172-73-5 77536-67-5 77536-66-4 77536-68-6 12001-29-5 132207-32-0 1332-21-4	Non-use	All materials	REACH ANNEX XVII
Beryllium oxide	1304-56-9	ND	All materials	REACH ANNEX XVII California Section 65 IEC 62474
Bisphenol A (BPA)	80-05-7	50ppm	All materials	California Section 65
		ND	Thermal paper	REACH ANNEX XVII
Dimethyl Fumarate (DMF)	624-49-7	0.1ppm	All materials	REACH ANNEX XVII 2012/48/EU
Chlorinated Paraffins, Medium Chain (MCCP)	85535-85-9	Non-use	All materials	REACH ANNEX XVII
Chlorinated Paraffins, Short Chain(SCCPs)	85535-84-8 84082-38-2 71011-12-6 85536-22-7 61788-76-9 108171-26-2	Non-use	All materials	REACH ANNEX XVII EU POPs
Cobalt dichloride	7646-79-9 7791-13-1	Non-use	All materials	REACH ANNEX XVII
Decabromodiphenylethane (DBDPE)	84852-53-9	Non-use	All materials	Canadian Environmental Protection Act, 1999
Halogenated dioxins and furans	/	ND	All materials	EU POPs California Section 65
Halogenated diphenylmethanes The target is mono methyl tetrachlorodiphenylmethane, mono methyl dichlorodiphenyl methane, mono methyl dibromodiphenyl methane	76253-60-6 81161-70-8 99688-47-8	Non-use	All materials	REACH ANNEX XVII

Restricted Substances	CAS No	Concentration Limit	Application Scope	References
Hexabromocyclododecane and its diastereoisomers (HBCDD)	25637-99-4 3194-55-6 -50-6 -51-7 -52-8	ND	All materials	IEC 62474 EU POPs IEC 62474 Norway FOR-2004-06-01-922
Hexachlorobutadiene	87-68-3	Non-use	All materials	EU POPs US TSCA
Hexachlorocyclohexane	608-73-1 58-89-9 319-84-6 319-85-7 several	Non-use	All materials	EU POPs
Hexachlorobenzene (HCB)	118-74-1	10ppm	All materials	EU POPs
Aromatic hydrocarbons of mineral oil (MOAH) with 1 to 7 aromatic rings	Not applicable	1ppm (MOAH with 3 to 7 aromatic rings) 1000ppm (MOAH with 1 to 7 aromatic rings)	Printing ink in packaging materials	law n ° 2020-105
Mineral oil saturated hydrocarbons (MOSH) with 16 to 35 carbon atoms	Not applicable	1000ppm	Printing ink in packaging materials	law n ° 2020-105
Nickel and its compounds	7440-02-0 several	Release of Nickel: 0.2 g/cm ² /week	Parts or materials which prolonged contact with human skin	REACH ANNEX XVII
Ozone Depleting Substances(ODCs)	/	Non-use	All materials	Montreal Protocol 2037/2000/EC
Polycyclic aromatic hydrocarbons(PAHs)	/	Single<0.2ppm and totle <1ppm	For Children under 3 years old to use, Materials can be put into mouth or Materials of toys which prolonged contact with human skin(more than 30 seconds)	REACH ANNEX XVII GS: AfPS GS 2019:01PAK

Restricted Substances	CAS No	Concentration Limit	Application Scope	References
		<p>Exposure for child: single<0.2ppm and total <5ppm; Other production single<0.5ppm total<10ppm</p>	Not included in upper situation, materials which prolonged(more than 30 seconds)or repeated contact with human skin	
		<p>Exposure for child: single<0.5ppm; Other production single<1ppm</p>	Not included in upper two situations, materials which short(below 30 seconds)contact with human skin	
Pentachloropheno I (PCP)and its salts and esters	87-86-5, 85380-74-1 Several	Non-use	All materials	EU POPs
Perchlorate	7601-89-0 7778-74-7 7790-98-9 7791-03-9 10034-81-8	6ppb	All materials	Perchlorate Contamination Prevention Act GADSL REFERENCE LIST
Polychlorinated biphenyls(PCBs) Polychlorinated naphthalenes(PCNs) Polychlorinated terphenyls(PCTs)	1336-36-3 70776-03-3 61788-33-8 Several	Non-use	All materials	REACH ANNEX XVII Japan. Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances
Perfluorooctanoic acid (PFOA) and related compounds	/	<p>≤1ug/m²(coating area)</p> <p>25ppb</p>	<p>Textiles and other coating materials</p> <p>All, those restricted above</p>	REACH ANNEX XVII Norway FOR-2004-06-01-922 Canadian Environmental Protection Act, 1999
Perfluoroalkyl sulfonic acid and its related substances	Several	Non-use	All materials	EU POPs Ministry of Ecology and Environment Announcement No. 10, 2019 US TPCH REACH ANNEX XV Stockholm Convention

Restricted Substances	CAS No	Concentration Limit	Application Scope	References
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Restricted Substances	CAS No	Concentration Limit	Application Scope	References
Halogen: Cl, Br	7782-50-5 etc.	Cl<900ppm; Br<900ppm 1500 ppm (Cl + Br) total content	All materials (except metal, glass and ceramics)	JPCA-ES-01-1999 IEC 61249-2-21 IPC-4101B

附录 2: 产品中的管理物质

管理物质	CAS号	限值	适用范围	参考资料
氨乙基乙醇胺	111-41-1	最低检出浓度	涂料、油漆、 清漆、纺织、 缓蚀剂	加拿大环境保护法
2-[(2-氨基乙基)氨基]乙醇	111-41-1	最低检出浓度	所有材料	加拿大环境保护法
氯化苜烯	多个	最低检出浓度	穿戴类产品	加拿大环境保护法
界面活性剂 DTDMAC、 DODMAC/DSDMAC、 DHTDMAC	68783-78-8 107-64-2 61789-80-8 多个	1000ppm	所有材料	挪威 PoHS 指令
苯乙烯化二苯胺 SDPA	/	最低检出浓度	所有材料	加拿大环境保护法

华盛顿州儿童高关注度化
学品清单

http://apps.leg.w
a.gov

Managed Substances	CAS No.	Concentration Limit	Application Scope	Referances
2-(2-Aminoethylamino)ethanol	111-41-1	Exceed MDL	All materials	Canadian Environmental Protection Act, 1999
Chlorinated Hydrocarbons	Several	Exceed MDL	Wearable product	Canadian Environmental Protection Act, 1999
Surfactant DTDMAC,DODMAC/DS DMAC,DHTDMAC	68783-78-8 107-64-2 61789-80-8 Several	1000ppm	All materials	Norway FOR-2004-06-01-922
Diphenylamines, Substituted(SDPA)	/	Exceed MDL	All materials	Canadian Environmental Protection Act, 1999
Washington State's List of Chemicals of High Concern to Children (CHCC)	http://apps.leg.wa.gov/WAC/default.aspx?cite=173-334-130 several	Exceed MDL	Children's product	Children's Safe Products Act
Proposition 65 list of chemicals	All applications, All the substances are managed substances except the substances which listed in the standard, the list refers to: http://oehha.ca.gov/risk/op65/prop65_list/Newlist.html	Exceed MDL	All materials	California Section 65
RoHS	/	4.1 limit substances' concentration limit	RoHS exempted parts/ components	Goertek policy
IEC 62474 Substances	http://std.iec.ch/iec62474	According to this standard	All materials	Goertek Policy

附录 3: 制程限制物质 / Appendix 3: Process-Restricted Substances

限制物质	CAS 号	限值	适用范围
苯	71-43-2	禁止使用	清洗剂、去油剂、脱模剂等
		需通报	其他制程
铍粉尘	7440-41-7	呼吸区域 0.0001mg/m ³	连接器触点、EMI 触片 (铍铜合金)、收发器 (氧化铍)
含溴有机溶剂	109-65-9	禁止使用	清洗剂

限制物质	CAS 号	限值	适用范围
	106-94-5 75-26-3 75-27-4 74-83-4 74-83-9 124-48-1		
乙二醇丁醚	111-76-2	禁止使用	油漆、涂料、稀释剂等
含氯有机溶剂	/	禁止使用	清洗剂、去油剂、脱模剂
		需通报	其他制程
环己烷	110-82-7	禁止使用	清洗剂、去油剂、脱模剂
双吗啉甲烷	5625-90-1	禁止使用	CNC防锈剂
甲醛	50-00-0	需通报	清洗剂
氟化氢	7664-39-3	需通报	清洗剂
甲苯	108-88-3	禁止使用	清洗剂、去油剂、脱模剂
		需通报	其他制程
正庚烷	142-82-5	禁止使用	清洗剂、去油剂、脱模剂
正己烷	110-54-3	禁止使用	清洗剂、去油剂、脱模剂
		需通报	其他制程
醋酸镍	6018-89-9	禁止使用	金属阳极封孔剂
N-甲基吡咯烷酮NMP	872-50-4	禁止使用	清洗剂、去油剂、脱模剂
		需通报	其他制程
臭氧层破坏物质 ODCs	/	禁止使用	清洗剂
炔丙基氯	624-65-7	禁止使用	金属钝化剂
六氟化硫 SF ₆	2551-62-4	呼吸区域小于 1000ppm (6000mg/m ³)	制造环节, IC 制造的受控条件除外
二甲苯、乙苯、甲醇	106-42-3 108-38-3 95-47-6 100-41-4 67-56-1	禁止使用	清洗剂

Restricted Substances	CAS No.	Concentration Limit	Application Scope
Benzene	71-43-2	Non-use	Cleaning agents, degreasers, release agent etc.
		Required to report	Other manufacturing processes
Beryllium Dust and Fumes	7440-41-7	< 0.0001 mg/m ³ Breathing zone < 0.0001 mg/m ³	Connector contacts, EMI finger (beryllium-copper alloys), transceivers (beryllium oxide)

Restricted Substances	CAS No.	Concentration Limit	Application Scope
Bromine-containing organic solvent	109-65-9 106-94-5 75-26-3 75-27-4 74-83-4 74-83-9 124-48-1	Non-use	All manufacturing processes
2-Butoxyethanol	111-76-2	Non-use	Paints, coatings, cleaning agents
Chlorinated Organic Solvents	/	Non-use	Cleaning agents, degreasers, release agent
		Required to report	Other manufacturing processes
Cyclohexane	110-82-7	Non-use	Cleaning agents, degreasers, release agent
Dimorpholine	5625-90-1	Non-use	CNC rust preventive
Formaldehyde	50-00-0	Required to report	All manufacturing processes
Hydrogen fluoride	7664-39-3	Required to report	All manufacturing processes
Toluene	108-88-3	Non-use	Cleaning agents, degreasers, release agent
		Required to report	Other manufacturing processes
n-Heptane	142-82-5	Non-use	Cleaning agents, degreasers, release agent
n-Hexane	110-54-3	Non-use	Cleaning agents, degreasers, release agent
		Required to report	Other manufacturing processes
Nickel acetate	6018-89-9	Non-use	Porous sealing agent for metal anode
N-methylpyrrolidone (NMP)	872-50-4	Non-use	Cleaning agents, degreasers, release agent
		Required to report	Other manufacturing processes
Ozone Depleting Chemicals (ODCs)	/	Non-use	All manufacturing processes
Propargyl chloride	624-65-7	Non-use	Metal deactivator
Sulfur hexafluoride (SF6)	2551-62-4	Breathing zone <1000ppm(6000mg/m3)	For manufacturing except IC lithography
Xylene, p-xylene, m-xylene, o-xylene, ethyl benzene, methanol	106-42-3 108-38-3 95-47-6 100-41-4 67-56-1	Non-use	All manufacturing processes