

## **Restricted Substance Control Standard**

**DOC Number : HPT-01-043**

**Revision : 25**

**Level : Secret**

**Prepared By : Penny\_Chen**

**Checked By : David\_Hsieh/ Masa\_Hsieh**

**Approved By : Sylon\_Yang**

## Table of Contents

	<b>Page</b>
<b>1. Purpose :</b> .....	3
<b>2. Scope :</b> .....	3
<b>3. Definitions of Glossary :</b> .....	3
<b>4. Test Method and Standard Requirement :</b> .....	6
<b>5. Reference :</b> .....	7
<b>6. Operational Procedure :</b> .....	8
<b>7. Requirement :</b> .....	8
<b>Table 1 : RoHS Prohibitted Substances and Halogen-free products</b> .....	10
<b>Table 2 : CPT Controlled Substances</b> .....	11
<b>Table 3 : Table of CAS No. (Limited)</b> .....	20
<b>Table 4 : Revision History</b> .....	21

## 1. Purpose :

This document is provided for any of managing substances to all of Chicony Power Technology(CPT)'s suppliers and internal departments of Procurement, Quality, and R&D functions as their referring rule per a clear structure of CPT managing substances, including those substances of prohibition, restriction, assessment and exemption item applies with the aim of continued to preventing any materials, subsidiaries, parts and products that defined managing substances may be mixed in, and to meets where local and world-wide related regulations, customer's spec and keep on protecting the global environment with reduces the ecological burdens.

## 2. Scope :

### 2.1 The scope of products :

2.1.1 The power supply products that are designed and manufactured by CPT for sale, loan, or distribution.

2.1.2 Third parties trades/customers whose design and/or manufacture are outsourcing from CPT (except when the parts and materials are assigned by the third parties).

### 2.2 The scope of parts and materials :

2.2.1 Made up by CPT's products include component parts, materials and others. (e.g. subsidiary, packaging material).

2.2.2 CPT consigned where third parties for design, producing parts (e.g. module parts, components, materials, etc.), and their manufacturing process, repairs the use of subsidiary (e.g. solders, oils, fluxes, lubricants, tapes, etc.) and packaging materials.

2.3 This standard also applys to CPT's relationship business, branches where including the trade named CHICONY POWER sited in domestic/overseas that individual place of factory, office and hub/warehouse. Additonal, if any managed substances which are not defined in this document but might regulated by some countries or where laws have prohibited, supplier would follow then.

2.4 Sould be considering on prior to follow which requirements of, customer's spec, specific procurement requires that definition might other than this document.

2.5 While this standard updates, the updated requisition only apply to the products customer request : If there are particular request, CPT will regard it by case and send notice to supplier.

## 3. Definitions of Glossary :

3.1 **Substance:** A substance or compound that made up of chemical elements, e.g. lead (chemical element), lead oxide (compound). Registry number (RN) of the Chemical Abstracts Services of the American Chemical Society ("CAS" number) are attributed to all chemical elements and most of their compounds and should be used for their identification. Which CAS numbers please refer to the Annex 3 for details.

3.2 **Environment-related substances to be managing (Managing substances):** Among the substances contains in materials, parts, devices and menufacturing process. Managing substances are those which, according to CPT's judgment, have significant impact to both the human health and global environment.

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	----------------------	---------------	--

Following are 3 levels categories of managing substances:

- 3.2.1 Level A: CPT's prohibited items, which substances should be banning immediately and contains does not over the threshold value even though unavoidable mixed when manufacturing (see Table 2 for details)
- 3.2.2 Level B: On the date set in this table, the substances and their applications in the respective tables shall be reclassified into Leve C.
- 3.2.3 Level C: CPT's reduction of use of items, which substances are still not goes banning, but require to writing feedback activity, and would be treated as suppliers can able to meet the due date of removed of those items prior to 6 months. While the reduction date is not clear, refers to the regulations of worldwide countries or customers. (see Table 2 for details)
- 3.3 **Contained:** "Contained" means that a substance remains in parts, devices, or their materials because of addition, filling, blending, or adhesion, whether intended or not. When a substance is unintentionally contained in, or added to a product in manufacturing process, this situation is also regarded as "Contained".
- 3.4 **Intentionally added:** "Intentionally added" means a situation where a substance is intentional contained in the part, device, or its materials because of deliberate addition, filling, blending, or adhesion, in order to provide a specific characteristic, appearance, property, attribute or quality.
- 3.5 **Parts per million (ppm):** Unit of measurement for weight percentage. 1ppm= 1mg/kg= 0.0001% by weight. The parts per million thresholds listed in this specification refer to the weight of the substance in a specific homogenous material, not the weight of the substance in an etire parts (or assemblies system), except for SVHCs.
- 3.6 **Homogenous material:** Means a material that cannot be mechanically (i.e. screw off, cut out, broken, grinded) disjointed into different material. A complex material that volume is less than 4 mm-cubic, shall treat it as a homogenous material. Remind that don't make the entire of a complex module parts (semi-product) or non-homogenous material that tested by using a mixed process, it perhaps result in the managing substance be diluted or misjudgment.
- 3.7 **Electronic components:** Electrical or electronic devices that are not subject to disassembly without destruction or impairment of design use. They are sometimes called electronic parts, or piece parts. Examples such as, resistors, capacitors, diodes, integrated circuits, hybrids, application specific integrated circuits, wound components and relays.
- 3.8 **Preparation:** The mixture or solution which composed of two or more than two substances. Such as paint, alloy, gasoline, etc.
- 3.9 **Polymeric material:** A material or raw-material that made-up via macromolecules synthesized process, covered such as inks, paints, resins, adhesives, stabilizers, pigments, molding compounds and synthetic rubber, especially for the natural resins which might synthesized with either said material or preparation that means too.
- 3.10 **Exposed areas:** The parts assembled into the products can be seen and touched the skin of end-user.

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	----------------------	---------------	--

Exposed areas on CPT's products: Metal case, Plastic case, Fan grille, Screw, DC/AC Cable, SR, Core, Inlet & Outlet, Socket/Holder, Switch, Model label, Washer, Rubber foot, Grip surface, etc.

- 3.11 **Packaging parts (components and materials):** The product made from any materials and components of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods from the producer to the user or consumer, except for the components and materials for the returnable boxes, which are reused or recycled under the control of carriers or parts suppliers, and are not disposed by end-user. The packaging parts including which parts for sale, combined or secondary, transporting or third packing (i.e. carton, shipping packs, cushion & bubble, bags, ties, adhesive tapes, glues, buckles & nails, etc.), includes which inks & pigments used for marks. Remind which manual, warranty book, printed papers for product & its parts-related, they are exempted.
- 3.12 **Halogen-Free material:** CPT's spec required to meet such material- identify to CPT's part number with "HF" at last 2 codes. Suppliers should meet materials, parts, packages, and indirect materials used in producing and repairing.
- 3.13 **Exempted:** A banning item it cannot be alternated by technique or scientific, or even though well alternated but also have some factors impacting to the environment. This document provides which exemption terms are followed the EU RoHS (2011/65/EU), end-customers and international laws definitions.

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	----------------------	---------------	--

#### 4. Test Method and Standard Requirement :

Any quantification test method defined in this document that should chosen, prioritized by the electronic relating standards, product's shipping target area where national standards, industries common standards. CPT's recognized test methods as following:

#### CPT Recognized Test Methods

Test Item		Materials	Methods
Cadmium (Cd)		Plating/Coating of surface	ICP-OES, ICP-MS, AAS, AFS (IEC 62321-5:2013)
		Polymers	
		Metals	
		Electronic Parts	
Lead(Pb)		Polymers(Package is exempted)	ICP-OES, ICP-MS, AAS, AFS (IEC 62321-5:2013)
		Metals	
		Electronic parts	
Mercury (Hg)		Polymers, Metals, Electronic parts	CV-AAS, CV-AFS, ICP-OES, ICP-MS (IEC 62321-4:2013)
Chromium VI ( $\text{Cr}^{6+}$ )		Polymers, Electronic parts	UV-Vis (IEC62321-7-2:2017)
		Metallic materials(Includes plating of metals)	boiling-water-extractinprocedure: UV-Vis (IEC62321-7-1:2015)
Cd+Pb+Hg+ $\text{Cr}^{6+}$		Packages	Same as above
PBBs/PBDEs		Polymers, Electronic parts	GC/MS (IEC62321-6:2015)
Halogen	Total Cl	Non-metals & Ceramics (Any parts that assigned as Halogen-free)	Ion Chromatograph, BS EN14582 : 2007 (Oxygen Combustion is required)  IEC 61189-2 (Combustion Flask is required)
	Total Br		
	Total Cl+Br		
Polyaromatichydrocarbons(PAHs)		Exposed plastics (Applying to GS MARK)	US EPA 8270D, US EPA 3540, ISO 18287
HBCDD, DEHP, BBP, DBP, DIBP		Polymers, Electronic parts	GC/MS (IEC62321-8:2017)

Note :

- The method of IEC 62321 is required to follows the newest issued standard.
- When CPT's special required for new test item will then informed by official letter.
- Definitions and References :
  - The test report is unacceptable for only spot test result without boiling water process judgment.
  - AAS (Atomic Absorption Spectroscopy)
  - AFS (Atomic Fluorescence Spectrometry)
  - CV-AAS (Cold Vapor Atomic Absorption Spectrometry)
  - GC-MS (Gas Chromatography/Mass Spectrometry)
  - LC-MS (Liquid Chromatography Mass spectrometry)
  - ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometry)
  - IC (Ion Chromatography)
  - ICP-MS (Inductively Coupled Plasma-Mass Spectrometry)
  - IEC (International Electrotechnical Commission) [http : //www.iec.ch/](http://www.iec.ch/)
  - The third party lab's test report shows MDL (Method Detection Limit) that shall not be higher than

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	----------------------	---------------	--

Chicony Power defined threshold value for relevant managed substances.

## 5. Reference :

This document provisions draw up according to the related laws, regulations and most of customers environment control standards, when the customers requested in change and/or the laws or regulations has been revised, this document will properly to reflects the renewal correspondingly.

- 5.1 Directive of the European Parliament and of the Council on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU, July-2011 and its update regulations afterward.
- 5.2 Norway regulation- bans PFOA in consumer products
- 5.3 Directive of the European Parliament and of the Council on Packaging and Packaging waste, 94/62/EC, December 1994, and its later updated or recast directives
- 5.4 REACH: EU regulation No.1907/2006, Registration, Evaluation, Authorization of CHemicals
- 5.5 SVHC: EU regulation No.1907/2006, Substances of Very High Concern
- 5.6 EU regulation No.1907/2006, Annex XIV(14)
- 5.7 EU regulation No.1907/2006, Annex XVII(17)
- 5.8 California Safe Drinking Water and Toxic Enforcement Act of 1986 (Section 25249.5- 25249.13 of the California Health and Safety Code), commonly referred to as "California Proposition 65"
- 5.9 German Ordinance concerning the avoidance and recycling of packaging waste (Packaging Ordinance- Verpack V), August 1998
- 5.10 Commission Directive 2004/21/EC of 24 Feb. 2004, relating to restrictions on the marketing and use of "Azo Colourants" (thirteenth adaptation to technical progress of Council Directive 76/769/EEC)
- 5.11 Commission Regulation (EU) No.757/2010 of August 2010 amending Regulation (EC) No.850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes I and III
- 5.12 Regulation (EC) No.1005/2009 of the European Parliament and of the Council of Oct. 2009 on substances that deplete the ozone layer
- 5.13 EU directive 2012/48/EU, Banning of DMF, Jan.-2012
- 5.14 Commission Regulation (EU) No.757/2010 of August 2010 amending Regulation (EC) No.850/2004 of the European Parliament and of the Council on persistent organic pollutants as regards Annexes I and III
- 5.15 German's GS Mark of restricting PAHs that criteria per ZEK01.4-08, Nov. 2012
- 5.16 Denmark's Order BEK nr 1113, bans 4 Phthalates in specific consumer products, for indoor use of, that would skin or mucous contact
- 5.17 JIG-101: Joint Industry Guide (JIG), Material Composition Declaration for Electronic Products
- 5.18 IEC (International Electrotechnical Commission), IEC 62474, Material Declaration for Products of and for the Electrotechnical Industry

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	----------------------	---------------	--

- 5.19 China RoHS, for the Electronic Information Products (EIP), its regulation and standards, such as GP/T 26572-2011, GP/T 26125-2011
- 5.20 IEC 61249-2-21, Materials for printed boards and other interconnecting structures - Part2-21 : Reinforced back materials, clad and unclad – Non-halogenated epoxide woven E-glass reinforced laminated sheets of defined flammability (vertical burning test), copper clad. IEC,2003
- 5.21 IEC 62321: Procedures for the determination of levels of regulated substances (Lead, Mercury, Cadmium, Hexavalent, Chromium, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers, Phthalates) in electrotechnical products
- 5.22 BS EN 14582:2007: Characterization of waste. Halogen and Sulfur content. Oxygen combustion in closed systems and determination methods.Issued by BSI British Standards (2007/04/30)
- 5.23 EU directive 2006/66/EC, Batteries and accumulators and waste batteries and accumulators and repealing directive, including its amendments
- 5.24 Customer's environment-related substances to be controlled standard, such as, Apple 069-0135, Acer 707-0008, Asus S-AT2-001, Dell ENV0424, HP GSE, Intel 18-1201, Lenovo 41A7731, Microsoft H00594, Sony SS-00259, Toshiba 360045308, etc.
- 5.25 GBZ 2.1 2007
- 5.26 98/8/EC BPR, Regulation (EU)
- 5.27 Dodd-Frank Wall Street Reform and Consumer Protection Act
- 5.28 Lacey Act amendments

## 6. Operational Procedure :

- 6.1 The criteria will be implemented after GP Champion approved, and the same as revised.
- 6.2 Chicony Power would additional be informed or surveyed suppliers when if new significant substances or checking action issued from the customers.
- 6.3 Regarding the use of substances prohibited or restricted by regional or country laws and ordinances, the laws and ordinances must be observed and followed even though the substances and their uses are not clearly provides in this document.
- 6.4 The overall clauses would be priorred to adopt the Chinese version if somewhere be contradicted each other.

## 7. Requirement :

- 7.1 CPT asks supplier to confrom to Restricted Substance Control Standard. While the hazardous substance contained in the approved products since the Restricted Substance Control Standard revises and adds new substance, please inform component approval department actively.
- 7.2 RoHS Restricted Substances and Halogen-free products: According to Table 1 RoHS Prohibited Substances and Halogen-free products, supplier should provide third party lab test report to verify the component

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	----------------------	---------------	--



materials compliant to the Restricted Substance Control Standard.

7.2.1 Corresponding Form: Form033 - Supplier's Declaration of Conformity

7.3 CPT controlled substances: The hazardous substance in Table 2 integrates from all end customers' restricted requirements, for detailed content please refer to "Form033 - Supplier's Declaration of Conformity ". Supplier should provide the below form in order to proof the component material conforms to Table 2 standard.

7.3.1 Corresponding Form: Form033 - Supplier's Declaration of Conformity

7.4 REACH SVHC Candidate List of substances of very high concern for Authorisation

7.4.1 SVHC candidate list updates by semi-yearly, suppliers shall actively get information then check any materials whether used (contained) ECHA releases substances/compounds or not. CPT requires suppliers must to verify overall parts including packaging materials that may contain SVHC substances over 0.1% (w/w) in homogeneous level.

7.4.2 Corresponding Form: Form141 - REACH SVHC Declaration

7.5 Annex XIV of REACH ("Authorisation List")

7.5.1 Any enterprises cannot use substances in REACH Annex XIV of REACH after the 「 sunset date 」 unless acquire the permission from EU authority.

7.5.2 Corresponding Form: Form033 - Supplier's Declaration of Conformity

7.6 Annex XVII of Substances restricted under REACH

7.6.1 Restricted substances listed in Annex XVII are limited or banned. If against the regulation or above the allowed threshold, it is not allowed to be imported into Europe.

7.6.2 Corresponding Form: Form033 - Supplier's Declaration of Conformity

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	----------------------	---------------	--

**Table 1 : RoHS Prohibited Substances and Halogen-free products**

Note: It is required to provide third party lab test report in this table.

Corresponding form: Form032 - The Ingredient List of Environment-related Substances

Substance Name	CAS Number	Application	Threshold Value(ppm)
Cadmium(Cd) and its compounds	Annex 3-1	Polymer Materials, Electronic parts	5
		Solders	20
		Plating, coating	No Intentionally Added
		Wooden goods	2
		All other applications	50
Lead(Pb) and its compounds	Annex 3-2	Polymer Materials	50
		Wooden goods	90
		In steel alloys	3500
		In aluminium alloys	4000
		In copper alloys	40000
		High-melting temperature solder type	Pb>85% Exempted
		Electrical/Electronic/Equipment's glass of ceramic(except of capacitor's ceramic)	Exempted
		All other applications	500
Mercury(Hg) and its compounds	Annex 3-3	All applications	No Intentionally Added
Hexavalent Chromium(CrVI) & its compounds	Annex 3-4	Metallic materials(Including metal plating)	Negative(<0.1ppm)
		Polymer Materials	No Intentionally Added
		Leather goods contact with skin	3
		All other applications	500
Polybrominated Biphenyls (PBBs)	Annex 3-30	All applications	No Intentionally Added
Polybrominated Diphenyl Ethers (PBDEs) (Including Deca-BDE)	Annex 3-31	All applications	No Intentionally Added
Butyl benzyl phthalate (BBP)	85-68-7	All applications	No Intentionally Added
Dibutylphthalate (DBP)	84-74-2	All applications	No Intentionally Added
Diisobutyl phthalate (DIBP)	84-69-5	All applications	No Intentionally Added
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	All applications	No Intentionally Added

Total Cl	--	All metalloid parts(for halogen-free specific project only)	900
Total Br	--		900
Cl+Br	--		1500

Remarks: For the most part, follow the threshold value in Annex II per EU regulation 2015/863. Otherwise, please follow if customers add additional requirement.

## Table 2 : CPT Controlled Substances

Note: For detailed controlled applications and threshold value, please refer to Form033 - Supplier's Declaration of Conformity

### Level A: Prohibited Substances

物質名稱	CAS Number
Cadmium(Cd) and its compounds	Annex 3-1
Lead(Pb) and its compounds	Annex 3-2
Mercury(Hg) and its compounds	Annex 3-3
Hexavalent Chromium(CrVI) & its compounds	Annex 3-4
Acrylamide	79-06-01
Aldrin	309-00-2
Alkylphenols	EDF-149
Ammonium nitrat	6484-52-2
Asbestos	Annex 3-7
Azo Colorants and Aromatic Amines	Annex 3-8
Beryllium(Be) and its compounds	Annex 3-9
Bis(chloromethyl)ether	542-88-1
Boric acid, specific sodium borates	Annex 3-11
2-(2-butoxyethoxy)ethanol(DEGBE)	112-34-5
Chlordanes	Annex 3-14
Chlordecone	143-50-0
Chlorinated Hydrocarbons	Annex 3-15
Cobalt(Co) and its compound	Annex 3-44
DDT	50-29-3
Dibutyltin hydrogen borate (DBB)	75113-37-0

Dieldrin	60-57-1
Dimethyl Fumarate (DMF)	624-49-7
Dioxins/Halogenated dioxins and furans	1746-01-6; 136677-10-6; 110-00-9
Endrin	72-20-8
Specific flame retardant categories by : R40,R45,R46,R48, R50,R51, R52,R53, R60,R6 (refer to 67/548/EEC & 2009/2/EC)	--
Expanded Polystyrene (EPS)	14235-54-2
Formaldehyde	50-00-0
Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4
Halogenated aromatic compounds	--
Halogenated Diphenyl Methanes	Annex 3-20
Hexachlorobenzene	118-74-1
Hexachlorobutadiene(HCBD)	3846-71-7; 87-68-3
Hexachlorocyclohexane isomers(HCH)	Annex 3-22
Kelthane	115-32-2
METHYLENE BISPHENYL ISOCYANATE (MDI)	101-68-8; 26447-40-5
2-(2-methoxyethoxy)ethanol(DEGME)	111-77-3
4,4'-methylenedianiline	101-77-9
Methyl bromoacetate	96-32-2
Mirex (Perchlordecone)	2385-85-5
musk xylene	81-15-2
N,N'-ditolyl-p-phenylenediamin, N-tolyl-N'-xylyl-p-phenylenediamine, or N,N'-dixylyl-p-phenylene diamine	Annex 3-25
Nickel ( Ni ) / Nickel Compounds	Annex 3-26
Nonylphenol/ethoxylates (NP/NPEs) and related substances	25154-52-3; 9016-45-9; 84852-15-3
Organic Tin Compounds	Annex 3-42

Heavy metals (Cadmium,Lead,Mercury,and Hexavalent chromium)	Annex 3-1 Annex 3-2 Annex 3-3 Annex 3-4
Pentabromodiphenyl ether	32534-81-9
Pentachlorobenzene (PeCB)	608-93-5
Pentachlorophenol (PCP) and its salts and esters	87-86-5
Perchlorate	Annex 3-52
Perfluorooctane sulfonates (PFOS)	Annex 3-28
Perfluorooctyl acid(PFOA) and individual salts and esters of PFOA	Annex 3-46
Polybrominated Biphenyls (PBBs)	Annex 3-30
Polybrominated Biphenyls Oxides (PBBOs)	--
Polybrominated Diphenyl Ethers (PBDEs) (Including Deca-BDE)	Annex 3-31
Polychlorinated Biphenyls (PCBs)	Annex 3-32
Polychlorinated Terphenyls (PCTs)	
Polychlorinated Naphthalenes (PCNs)(Cl $\geq$ 3)	Annex 3-33
Polyvinyl chloride (PVC)	9002-86-2
Polyaromatic hydrocarbons	Annex 3-34
Radioactive Substance	Annex 3-35
Red Phosphorus	7723-14-0
Short Chain Chlorinated Paraffins (C10-13)(SCCPs)	Annex 3-37
Specific Benzotriazole : 2-(3',5'-Di-tert-butyl-2'-hydroxyphenyl)benzotriazole 2-benzotriazol-2-yl-4,6-ditert-butyl-phenol	3846-71-7
Tetrabromobisphenol-A (TBBP-A)	Annex 3-12
Toxaphene	8001-35-2
Benzenamine, N-phenyl-reaction products with styrene and 2,4,4-trimethylpentene (BNST)	68921-45-9
2,4,6-tri-t-butylphenol	732-26-3
Yellow Phosphorus	12185-10-3
Tris (2-chloroethyl) phosphate (TCEP)	115-96-8
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8

Antimony(Sb) and its compounds	Annex 3-5
Diarsenic Pentoxide	1303-28-2
Diarsenic Trioxide	1327-53-3
Brominated flame retardants (other than PBBs,PBDEs, or HBCDD)	Annex 3-12
Chlorinated flame retardants	Annex 3-13
Disodium tetraborates	Annex 3-43
Bisphenol A	80-05-7
Sulfur	7704-34-9
Endosulfan	115-29-7 959-98-8 33213-65-9
Plant based materials (wood, paper and other plant-based Products)	-
Tris-(aziridiny)-Phosphineoxide	545-55-1
Carcinogenic substances (Group1 and Group2A: IARC definition)	-
Methyl-phenol compounds	95-48-7 106-44-5 108-39-4 1319-77-3
Biocidal products	-
Conflict minerals from Congo or its neighboring countries-Gold/Tantalum/Tungsten/Tin Conformant Smelters List: <a href="http://www.responsiblemineralsinitiative.org/conformant-smelter-refiner-lists/">http://www.responsiblemineralsinitiative.org/conformant-smelter-refiner-lists/</a>	-
Nitrogen trifluoride	7783-54-2
2-naphthylamine and its salts	553-00-4 612-52-2
Hexabromocyclododecane(HBCDD) and all major diastereoisomers	Annex 3-21
Lead (II) carbonate	598-63-0
Lead hydrocarbonate	1319-46-6
Lead (II) sulfate	7446-14-2; 15739-80-7
1,2-Dichloroethane (EDC)	107-06-2

2,4-Dinitrotoluene	121-14-2
Ammonium dichromate	7789-09-5
Arsenic acid	7778-39-4
Benzidine and its salts	Annex 3-50
Phthalates	Annex 3-29
The sum of BBP, DBP, DEHP, DIBP (When contains two kinds of phthalates above simultaneously)	85-68-7; 117-81-7; 84-74-2; 84-69-5
The sum of DINP, DIDP, DNOP (When contains two kinds of phthalates above simultaneously)	28553-12-0; 26761-40-0; 117-84-0
Cyclohexane	110-82-7
Mid Chained Chlorinated Paraffin, MCCPs (C14-17)	85535-85-9
4-Nitrobiphenyl and its salt	92-93-3
tris(2,3-dibromopropyl)phosphate (TRIS)	126-72-7
Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid ; Oligomers	7738-94-5 13530-68-2
1,3-dichloropropene	542-75-6
Cis-1,2-Dichloroethylene	156-59-2
Tetrachlorobenzene (TeCB), all members	12408-10-5; 84713-12-2
Elemental chlorine	-
Pentazinc chromate octahydroxide	49663-84-5
Potassium hydroxyl octaoxodizincatedichromate	11103-86-9
1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters	68515-51-5
Ethylene Glycol Ether and Acetate derivatives/Ethylene based glycol ethers	Annex 3-19
Toluene	108-88-3
Hexachloro-1,3-butadiene	93951-70-3

Phosphorous detergent or/and phosphorous passivation agent used for metal surface pretreatment	-
Fluorinated ethers and alcohols	Annex 3-51
Arsenic(As) and its compounds	Annex 3-6
Total Cl	-
Total Br	-
Cl+Br	-
n-Hexane	92112-69-1; 110-54-3
Benzene	71-43-2; 174973-66-1; 54682-86-9
Triphenyl Phosphate (TPP)	115-86-6
Antimony Trioxide(Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4
REACH Annex XIV Authorisation List	Annex 3-53
REACH Annex XVII Restriction List	Annex 3-54

**Note :**

1. For Sony products used 2 raw materials specified: Recycled Resin and Coated Wire (excluding electromagnetic wire and enameled wire) which materials are required to be procured from Sony GP certified suppliers.
2. Supplier should be reported to CPT about which managing substances containing status with phase-out or alternative plan as required. If needed, would also going surveys or require the 3rd party report.
3. Red Phosphorus: Target at the new case starting from July 2016, or particular case

**Level C: Declarable Substance**

Substance Name	CAS Number
Cadmium(Cd) and its compounds	Annex 3-1
Lead(Pb) and its compounds	Annex 3-2
All synthetic musks	541-91-3
Antimony(Sb) and its compounds	Annex 3-5



Bismuth (Bi) and its compounds	Annex 3-10
Bisphenol-A	80-05-7
Butyl bromoacetate	5292-43-3
Chlorobenzene	108-90-7
Chloromethyl-methylether	107-30-2
Chromium(Cr) and its Compounds	Annex 3-16
Cobalt(Co) and its compound	Annex 3-44
Cyanogen and its compounds	Annex 3-17
DTDMAC,DODMAC/DSDMAC & DHTDMAC(Surfactants)	Annex 3-18
Ethyl acrylate	140-88-5
Ethyl bromoacetate	105-36-2
Ethylene thiourea	96-45-7
Fluoroacetic acids	62-74-8
Gallium (Ga) and its compounds	--
Halogenated Naphthalenes (Except PCNs)	--
Halogenated additives	Annex 3-23
Indium(In) and its compounds	22519-64-8
Long Chain Chlorinated Paraffins, LCCPs (C18-30)	108171-27-3
Magnesium (Mg) / Magnesium compounds	7439-95-4
Manganese (Mn) and its compounds	Annex 3-24
Man-made vitreous (silicate) fibres	--
Monofluoroacetamide	640-19-7
Monofluoroacetate salts	144-49-0
n-Hexane	110-54-3
Nickel ( Ni ) / Nickel Compounds	Annex 3-26
2-Nitrobenzaldehyde	552-89-6
4-Nitrobianiline and its salt	836-30-6
Octylphenol	1806-26-4
Parathion	56-38-2
Parathion-methyl	298-00-0

PBD (polybromo diphenyls)	--
Perfluoroalkyl sulfonates(PFASs)	--
Phenol and Phenolic compounds	108-95-2
Phthalates	Annex 3-29
Polyvinylidene Chloride (PVDC)	9002-85-1
Selenium(Se) and its compounds	Annex 3-36
Synthetic mineral fibers	--
Triclosan	3380-34-5
Zinc(Zn) and its compounds	Annex 3-38
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linearDiisohexyl phthalate (DiHP)	68515-50-4
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4- stannatetradecanoate (DOTE)	15571-58-1
reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2 -oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	--
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
Musk ketone	81-14-1
Refractory ceramic fibres	-
1,2,3-Trichlorobenzene	96-29-7
Indium phosphide	22398-80-7
Hexamethylene diacrylate	13048-33-4
n-Butyl glycidyl ether	2426-08-6
Nanoscale	-
Natural rubber and natural latex	-
Organophosphorus compounds except TCEP and TDCPP controlled in Level A	-
4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9
Polyaromatic hydrocarbons(PAHs)	Annex 3-34
Polyvinyl chloride (PVC)	9002-86-2
Arsenic(As) and its compounds	Annex 3-6

Note :

- Supplier should be reported to CPT about which managing substances containing status with phase-out or alternative plan as required. If needed, would also going surveys or require the 3rd party report.

### Level A: Prohibited Substance in Manufacturing Process

Substance Name	CAS Number
Sulfur hexafluoride (SF6)	2551-62-4
Hydrofluorocarbon(HFC)	Annex 3-48
Perfluorocarbon(PFC)	Annex 3-41
Ozone Depleting Substances(ODS) Based on Montreal Protocol (Including CFCs, Halons, carbon tetrachloride, 1,1,1 -trichloroethane , HCFCs, HBFCs, bromochloromethane, methyl bromide)	Annex 3-40
Nonylphenols	-
Chloromethyl methyl ether	107-30-2
1, 2,4 - Trichlorobenzene	120-82-1
Para-dichlorobenzene	106-46-7
Trichlorobenzene	--
Chlorinated Solvents	Annex 3-31
Benzene	71-43-2; 174973-66-1; 54682-86-9
Toluene	108-88-3
Xylene	Annex 3-45
Ethyl benzene	100-41-4
Acetaldehyde	75-07-0
Azo Colorants and Aromatic Amines	Annex 3-8
Beryllium(Be) and its compounds	Annex 3-9
Bis(chloromethyl)ether	542-88-1
Polychlorinated Phenols and their salts	--
Cyclohexane	110-82-7
n-Hexane	92112-69-1; 110-54-3

1-Bromopropane (n-propylbromide)	106-94-5
Methanol	67-56-1
Yellow Phosphorus	12185-10-3
N-methylpyrrolidone(NMP)	872-50-4
Alkylphenols(AP) & Alkylphenol Ethoxylates(APEO)	-
Benzidine and its salts	Annex 3-50
Ethylene Glycol Ether and Acetate derivatives/Ethylene based glycol ethers	Annex 3-19

### Level A : Managing Substance for Battery

Substance Name	CAS Number
Cadmium(Cd) and its compounds	Annex 3-1
Lead(Pb) and its compounds	Annex 3-2
Mercury(Hg) and its compounds	Annex 3-3
Perchlorate	7791-03-9

### Table 3 : Table of CAS No. (Limited)

Please refer to CAS Number List in Form033 - Supplier's Declaration of Conformity

**Table 4 : Revision History**

ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
R0301061	2003/01/17	New issue		0
R0304152	2003/04/25	Update		1
R0401143	2004/01/30	Update to English version		2
R0402097	2004/02/16	Add Page 14~30(Chinese version)		3
R0505134	2005/05/24	P9,P23(Change TBBP-A-bis from level 2 to level 3)	Eden Chen	4
R0506001	2005/08/01	1.All level 2 change to level 1 2.Add 4.4 Substance Prohibited use in Manufacturing	Eden Chen	5
R0509153	2005/09/23	1.Change the level of 4.3 Ban ODC substance from level 3 to level 1 2.Add Chapter 4.3 in Chinese version 3.Delete Chinese version item5	Davy Chang	6
R0510030	2005/10/04	Update file name	Davy Chang	7
2006/01/11	2006/01/11	1.Add item 3-6 Specified raw materials 2.Add 4.4 Sony 4 raw materials	Davy Chang	8
2006/01/16	2006/01/16	1.Add item 5 High risk material nanagement 2.Add Ni (<100ppm) in table 4.1	Davy Chang	9
2006/03/27	2006/03/27	1.Combine Chinese & English version 2.Page 12 (Hg)& Page13 (Cr6+), add standards for measurement	Irene Liu Eden Chen	10
2006/04/21	2006/04/21	1.Update Cadmium and cadmium compounds: -Delete note: Cadmium contained in metal parts (e.g. zinc die-casting)is regarded as an impurity. Therefore,their cadmium concentrations shall be disregarded unless cadmium is intentionally added to them -Delete level 3: The plating of electrical contacts, for which high reliability is required and which has no substitute materials -Add level 1: Part composed of metals containing zinc (e.g. brass, hot dip galvanizing etc.) whose cadmium concentration is more than 100 ppm. Banned since october 1 2005 -Add Exemption list 2.Update (Formaldehyde): -Add with a desiccator method -Add Test method description "A desiccator method specified in JIS A 5905 (Fiberboards) snd JIS A 5908 (Particleboards)" 3.Update(Polyvinyl chloride (PVC)): -Delete original level 1, Level 3 -Add new description in level 1, level 2, level 3, Exemption 4.Update (Lead and lead compounds(Pb)): -Delete original level 3 -Add new description in level 3, Exemption 5.Update Mercury and mercury compound: -Delete level 3 -Add Exemption 6.Add 7.2 & 7.4 High risk material 7.Update 7.5.2 description 8.Delete 7.5.3 output power cord, List in High risk material 9.Add item 8, Reference DOC	Eden Chen Synge Luo	11
2006/08/14	2006/08/14	5.1.1 Add description: The design standards for parts or the material specifications describe "substances (Level 1) forbidden"	Eden Chen	12

ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
2006/11/3	2006/11/3	1.To revise item 1 (Purpose) & item 2 (Scope) description 2.Add item 3 terms and definitions 3.Delete section 3, responsibility, section 4, Guideline, section 5, Definitions of terms 4.In item section 4: -Add new substance as below: Ni, Radioactive materials, Halogenated Diphenyl Methanes, Chlorinated Hydrocarbons (Table-2B), TBBP-A -To revise chlorinated & brominated organic compounds -Delete TBBP-A-bis 5.Add item 6.7~6.9 6.Add HX-00011-00~03 in item 6.2 7. Add package & ODC on Table 1	Eden Chen	13
2006/12/6	2006/12/6	1.Update item 4.2: -To revise TBBP-A description -Add the lead contents -Update PVC description -Add Mercury compounds allowable concentration -To revise Hexavalent chromium compounds statement -Delete Pb/Cd/Hg/Cr6+/PBB's/PBDE's test standard -Add Table 5 test method -Add TBTO compounds in Organic tin compounds -To revise chlorinated & brominated organic compounds -To revise Ni contents 2.Add item: -Add 4.2.1 Environment testing method -Add 5.5.3 High risk material -Add 6.10, 6.11, 6.12 -Add testing method in 6.2	Eden Chen Synge Luo	14
2006/12/29	2006/12/29	1.Update item 4.2: -To move the 4.2.1 to 4.1.1 -Add the EPS contents -To revise TBBP-A description 2.Delete 5.4, IQC sampling rate (Times)	Eden Chen	15
2007/5/30	2007/5/30	1.Add item: -Add 3.2.3 level 3 description -Add 4.1.1 Environment testing method & Cr6+ testing method -Add 4.1.2 Testing item -Add 4.2.1 TBBP-A testing method 2.Update item 4.2: -To revise Hexavalent chromium compounds description -To add lead compounds description -Change the controlled targets of level 1, level 3 and Exemption of Polyvinyl chloride(PVC) and add table 2D -To revise TBBP-A description and allowable concentration and description -Add TBBP-A-bis compounds -Add Deca-BDE to be the banned substance -Add Beryllium oxide compounds -Add Beryllium copper compounds -Add specific phthalates compounds and table 2C -Add Hydrofluorocarbon (HFC), Perfluorocarbon (PFC) compounds -Delete mercury compounds Allowable concentration -Revise CP to SCCP	Eden Chen	16

ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
		-Add Halogenated dioxins and furans compounds -Add Hexachlorocyclohexane isomers (HCH), Polychlorinated dibenzodioxins (PCDDs), Polychlorinated dibenzofurans (PCDFs), Nonylphenol/ethoxylates (NP/NPEs) and related substances, Polyaromatic hydrocarbons (PAHs), musk xylene, All synthetic musks, alkylphenols 3.Add 6.14, 6.15 4.To revise 5.5.3 description		
2007/7/26	2007/7/26	1.Update item 4.2: -To revise cadmium concentration is more than 75ppm -To revise PVC from level 2 to level 3 -To revise HFC,PFC from level 3 to level 2 -To revise TBBP-A compounds, allowable concentration: Less than 800ppm for all applications 2.Add item: -4.2 Antimony and its compounds -Table 4.2 Halogen-free (Chlorine, Bromine), PCP compounds -4.2 Halogen free material 3.Cancel item: -4.1.2 Testing item -Section 5, High risk material	Pc Tu	17
2008/2/27	2008/2/27	1.Update item: -Update 4.1, Cd, Pb, Ni, PVC, ODS description -Update Halogen free requirement -Cancel table 4.6 2.Add item: -Add section 3, description -Add 4.1 Arsenic, Bismuth, Barium, Selenium, MCCP, SCCP, CP, PFOS, PFOA, HBCD description -Add section 4, Hexachlorobenzene, Aldrin, Dieldrin, Endrin, DDT, Chlordanes, Toxaphene, Kelthane, Triclosan, Hexachlorobutadiene N,N'-ditolyl-p-phenylenediamine; N-tolyl-N'-xylyl-p-phenylenediamine; 2,4,6-tri-t-butylphenol; 2-(2H-benzotriazol-2-yl)-4,6-di-t-butylphenol, Triclosan -Add 5, Halogen free requirement -Add 6, HIPRO Approved Test Methods & Judge Standard	Pc Tu	18
2008/6/18	2008/6/18	1.Update item: -Update 4.1 BeO -Update 4.1 PFOS to Level 1 -Update 4.1 Cd, Cl/Br, PFOA, Bismuth, Selenium applications &Threshold limit -Update 4.1 PAHs -Update 4.1 Specific phthalates -Update 5, Halogen free requirement -Update Table 5.1a 2.Add item: -Add section 2.1.1 "HF" -Add section 3 "Exposed areas" -Add section 4.1 PFOS -Add 4.1, Toluene, PBBOs, Ethylene Glycol Ether and Acetate derivatives, 4-Nitroaniline, Halogenated aromatic compounds, Yellow phosphorus, Bisphenol A, Zinc manganese, Cyanogen, Silver, Gold, Copper, Magnesium, Hydrogenerated organic compounds, SF6, 2-benzotriazol-2-yl-4,6-ditert-butyl-phenol,	Pc Tu	19

ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
		Hexabromobenzene, Tris(2-chloroethyl)phosphate, Polytetrafluoroethylene -Add 4.1, Cr in toy product control -Add 4.1, Table 4.2d PAHs, CHC & Table 4.2a, Hexachlorobenzene -Add section 6C, Definitions: ND, MDL, Negative -Add section 6, Halogenated substances testing method: BS EN 14582:2007 -Add section 6, HIPRO Approved Test Methods & Judge Standard: HF, TBBP-A, PAHs, Ni		
2009/4/9	2009/4/9	1.Update item: -New edition publish with changed the company titled from Hipro to Chicony Power -Revise the Level 1 to level 3 items to prohibited/restricted substances and reduce/substituted substances -Revise section 4: TBBP-A-bis, MCCP, Other chlorinated organic compounds, Other brominated organic compounds, Antimony, Bismuth, Phthalates, PAHs, Selenium, Arsenic, Hexabromocyclododecane, PBBO, Ni, Barium, Chromium substances to prohibited/restricted substances and reduce/substituted, Pb,Cd,Hg,Cr6+,PBB,PBDE,PAH threshold limit -Revise section 5, Haloghen free requirement -Revise reference 2.Add item: -Add Sony 4 raw materials for purchase & definition -Add section 4, Benzidine, Chromium(III), Cobalt, Gallium, Carcinogenic substances, Other organic tin compounds, DTDMAC, DODMAC/DSDMAC & DHTDMAC, Beryllium oxide, 4-Nitrobiphenyl, SVHCs, Carbon black, Crystalline silica, Fluoropolymers, Natural rubber latex, Polyvinylidene chloride (PVDC) Xylene, Para-dichlorobenzene, Ethyl benzene, Acetaldehyde, Trichlorobenzene, LCCPs, Musk ketone, Cobalt dichloride, Dimethylformamide (DMF) -Add section 7, REACH and 8, EuP requirement -Add exemption recalls fore-notice on Cd and Pb -Add Chlorinated solvents, Acrylonitrile, Perfluoroalkyl sulfonates, Hexachlorobenzene, Creosotes oil-wood Preservatives 3.Cancel item: -Cancel section 6, TBBP-A, Ni testing method -Cancel section 4, Pb, Cd Exemption item -Cancel section 4, Tris(2-chloroethyl) phosphate, Polytetrafluoroethylene, Hexabromobenzene, Gold, Silver, Copper	Eden Chen	20
2010/8/31	2010/8/31	1.Update item: -Section 2.3 with Scope -Section 3.4 & 3.5 into Intentionally added -Section 4 & 5 with their clauses -Section 8, Approved Test Methods and Judge Standard -Combined "Controlled Substances List" as Annex 1 & 2, with add or cancel some of controlled substances -Moved "Revision History" to the last pages 2.Add item: -Section 6 & 7 with their clauses -Note K. of section 8 3.Cancel item: -Cancelled "Note:Addendum"	David Hsieh	21



ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
2011/11/29	2011/11/29	1.Changed: Chapters 1,2,3,4,5, old Annex 1,2 2.Added: Chapters 7,8, section 3.2, 3.5, 3.9, new Annex 2,3 3.Deleted: Test report note items, ErP section, old Annex 1 items, Chapter 6 items	David_Hsieh	22
2016/04/25	2016/04/25	1.Changes - All description of contents - Definition of managing substances,intentional added,homogenous - Test methods requirements - Reference items - Managing substance's levels A/B/C - Updated the threshold level of Beryllium,HBCDD,Hexane,PFOS,PFOA,PBB,PBDE,PAHs,Red-P,TBBP-A,...etc. - Annex 3 2.Adds - Definition of Electronic parts,Package material,Halogen-free,etc. - Applications of Cadmium plating,Wood products - Applications of CrVI use in Polymers,Leathers - Applications of As2O5,As2O3 - Added of Hexane,Cyclo-Hexane,DIBP,Indium,BNST,etc. - Annex 1-5 3.Removes - Exemption term 7c-II	Cindy_Qiu	23
		Significantly changed in this version. For the Applications in use, Effective Date and Threshold Value, please refer to Form033(Rev 6).  1. Changes : ✓ Applications of Trichloroethylene ✓ Threshold valueof Cadmium, DBB ✓ Effective date of MCCPs as 2021 ✓ Annex 2 descriptions ✓ Page 5: Hexavalent chromium test method ✓ Page 5: DEHP,BBP,DBP ,DIBP test method ✓ Level of Arsenic and its compounds  2. Adds : ✓ CAS No: Annex 3-13, Annex 3-8, Annex 3-14, Annex 3-26, Annex 3-21, Annex 3-29, Annex 3-28, Annex 3-7, Annex 3-45, Annex 3-46, Annex 3-8 , Annex 3-27, Annex 3-41 ✓ HCBd description and CAS No ✓ Endosulfan, Tris-(aziridiny)-Phosphineoxide, 2-naphthylamine and its salts, Musk ketone, Nickel sulphate anhydrous, Nickel sulphate hexahydrate, Nickel sulphate heptahydrate, Nickel sulfamate, DIHP, DHNUP, nPiPP, DCP, DPP, “sum of BBP, DBP,DEHP, DIBP”, Refractory ceramic fibres, Carcinogenic substances, Methyl-phenol compounds, Biocidal products, 1,2,3-Trichlorobenzene,Indium phosphide, Hexamethylene diacrylate, n-Butyl glycidyl ether, Nanoscale, Natural rubber and natural latex, Nitrogen trifluoride, Plant based materials, Conflict minerals ✓ Annex3-13 THIOSULFAN's another usual name	Penny_Chen	24

ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
		<ul style="list-style-type: none"> <li>✓ PFOA description and CAS No</li> <li>✓ HBCDD substance description</li> <li>✓ PCP substance description</li> <li>✓ TeCB substance description</li> <li>✓ Annex 1-4</li> <li>Azo Colorants and Aromatic Amines,</li> <li>Bis(chloromethyl)ether, Polychlorinated Phenols and their salts, Tetrachloroethylene, Trichloroethylene,</li> <li>Cyclohexane, n-Hexane, Vinyl Chloride, 1-Bromopropane (n-propylbromide), Beryllium(Be) and its compounds</li> <li>✓ CAS No of NP/NPEs</li> <li>✓ Applications: Bisphenol A, Arsenic(As) and its compounds</li> <li>✓ 3.2.3 – Level C description</li> <li>✓ 3.4 description of not intentionally added</li> <li>✓ Test method of Halogen</li> <li>✓ Red phosphorus add note</li> <li>✓ 2.4 Description</li> <li>✓ Organophosphorus compounds</li> </ul> <p>3. Removes :</p> <ul style="list-style-type: none"> <li>✓ Annex 3-29 and Annex 1-2: Delete DnOP's CAS#84-75-3</li> <li>✓ Page 5 HBCDD</li> <li>✓ Page 5-6: Delete Note: 4 &amp; 5 and its</li> </ul>		
2018/07/02	2018/07/02	<p>1. Change :</p> <ul style="list-style-type: none"> <li>✓ Remove description of Negative in section 4 item 3 for A part.</li> <li>✓ Description of REACH SVHC in section 7.4.</li> <li>✓ Amend the description of section 3.6.</li> <li>✓ Section 5.2</li> <li>✓ Change description of "Annex 1: Managing Substances List" as " Level A: Prohibited Substances".</li> <li>✓ Change description of "Annex 1-3: Reduction of use of Substances List" as "Level C: Declarable Substance".</li> <li>✓ Change description of "Annex 1-4: Managing Substances for Manufacturing" as "Level A: Prohibited Substance in Manufacturing Process".</li> <li>✓ Change description of "Annex 1-5: Managing Substances for Battery" as "Level A: Managing Substances for Battery".</li> <li>✓ Change"Annex 1" as Table 1 , "Annex 2" as Table 2 , "Annex 3" as Table 3 , "Annex 4" as Table 4</li> <li>✓ Move content of Annex 2 to section 7.4</li> <li>✓ Section 3.2.3 amended as one year</li> <li>✓ Remove the remarks in page 11 to 4P</li> <li>✓ Change name of " Annex 1: Managing Substances List" as " Table 2 : CPT Controlled Substances"</li> <li>✓ Change Management Level B to A: DIDP, DNOP, DINP, Arsenic(As) and its compounds(All other applications except semiconductor chips (die only) and copper foil for printed circuit boards).), Arsenic(As) and its compounds(Wooden goods,Polymer Materials), PiPP, DMP, Total Cl, Total Br, Cl+Br, TPP, Sb2O3</li> <li>✓ Change Management Level C to A: Ethylene Glycol Ether</li> </ul>	Penny_Chen	25

ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
		<p>and Acetate derivatives/Ethylene based glycol ethers, n-Hexane</p> <ul style="list-style-type: none"> <li>✓ Change Management Level B to C: Arsenic(As) and its compounds,</li> <li>✓ Change Threshold Value: (Level A)DNOP, Bisphenol A, CrVI in Metallic materials, BNST, Chlorinated Hydrocarbons</li> <li>✓ Change Application: (Level A)Toluene, CrVI, TCP, PVC, Formaldehyde, PAHs,</li> </ul> <p>2. Add :</p> <ul style="list-style-type: none"> <li>✓ Section 7. Requirement</li> <li>✓ Add analytical technique of PBBs/PBDEs in section 4.</li> <li>✓ Add Level A substance: Brominated flame retardants (other than PBBs,PBDEs, or HBCDD), Chlorinated flame retardants, Nickel ( Ni ) / Nickel Compounds for "All applications of organo-nickel compounds", N-methylpyrrolidone, Toluene, Hexachloro-1,3-butadiene, Phosphorous detergent or/and phosphorous passivation agent used for metal surface pretreatment, Elemental chlorine, Fluorinated ethers and alcohols, Pentazinc chromate octahydroxide, Potassium hydroxyl octaoxidizincatedichromate, 1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters, Perfluorinated compounds, Antimony(Sb) and its compounds, Phthalates, The sum of DINP, DIDP, DNOP(When contains two kinds of phthalates above simultaneously), Benzene, Phthalates, Phenylmercury and its compounds</li> <li>✓ Add Level A Manufacturing Substance: N-methylpyrrolidone, Ethylene Glycol Ether and Acetate derivatives/Ethylene based glycol ethers, Alkylphenols &amp; Alkylphenol Ethoxylates, Benzidine and its salts</li> <li>✓ Add Level C Substance: 4-(1,1,3,3-tetramethylbutyl)phenol, PAHs(All applications except listed in Level A), PVC(Cable jacket)</li> <li>✓ Add CAS No.: Annex 3-1, Annex3-2, Annex 3-8, Annex 3-9, Annex 3-29, Annex 3-32, Annex 3-39, Annex 3-42, Annex 3-44, Annex 3-47, Annex 3-48, Annex 3-49, Annex 3-50, Annex 3-52, 24613-89-6 in Level A, 110-00-9 in Level A, 71-43-2, 174973-66-1, 54682-86-9 in Level A Manufacturing Process, Annex 3-55</li> <li>✓ Level A: Add REACH Annex XIV Authorisation List, REACH Annex XVII Restriction List</li> <li>✓ Section 4: Cr6+ add description Metallic materials</li> <li>✓ Add Conformant Smelters List link in Conflict minerals item in Level A.</li> </ul> <p>3. Remove :</p> <ul style="list-style-type: none"> <li>✓ Level C Phthalates application All other Phthalates except listed in Level A.</li> <li>✓ Level B CAS No.: 85-68-7, 84-74-2, 84-69-5, 117-81-7, 84-66-2, 84-61-7</li> <li>✓ Level A CAS No.(Duplicate in CAS Number sheet in Form033): 40088-47-9, 127-18-4, 79-01-6, 7758-97-6, 12656-85-81, 344-37-2, 67-72-1, 75-09-2, 127-18-4, 79-01-6, 75-01-4</li> </ul>		

ECN NO. Announcement	Effective Date	Change Items	Change by	Revision
		<ul style="list-style-type: none"> <li>✓ Level C CAS No.(Duplicate in CAS Number sheet in Form033): 7786-81-4, 10101-97-0, 10101-98-1, 13770-89-3</li> <li>✓ Remove CAS No.1314-06-3 in Level C and move this CAS No. to Annex 3-26.</li> <li>✓ Description of impurities in section 3.4.</li> </ul>		

Title : Restricted Substance Control Standard	DOC No. : HPT-01-043	Revision : 25	This document is property of Chicony Power and may not be transferred from the custody of Chicony Power, except has authorized by Chicony Power.
---	-------------------------	---------------	--