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Issued by	Qualitv Assurance Department

Green Procurement Standard

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CITIZEN ELECTRONICS CO., LTD.

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1. Purpose

This document provides the standard by which Citizen Electronics (hereinafter CE) purchases Green Materials preferentially from Green Suppliers. Green Suppliers means suppliers who actively promote environmentally-friendly activities. Green Materials mean materials (products, parts, component, raw materials, indirect materials, packaging materials, etc.) with minimal environmental impact which comply with applicable laws and regulations.

2. Scope

This procurement standard applies to all products specified by Citizen Electronics Co., Ltd.

3. Green Procurement Standard

(1) Evaluation of materials

For the Environment-affecting substances to be controlled contained in materials, CE sets five standards according to the risk of the materials; Banned Substances, Substances to be controlled, Monitored substances, Substances banned in manufacturing processes, and Restricted substances in packaging materials.

Please manage materials according to their classifications.

If one substance is classified in two or more groups, the stricter standard will apply.

- 1) Banned substances (Appendix A-I) URL: http://ce.citizen.co.jp/csr/environment.php#green
- Substances to be controlled (Appendix A-II) URL: http://ce.citizen.co.jp/csr/environment.php#green
- 3) Monitored substances (Appendix A-III) URL: https://chemsherpa.net/tool#declarable (Please refer to the latest version of "chemSHERPA Managed substances list")
- 4) Substances banned in manufacturing processes (Appendix A-IV) URL: http://ce.citizen.co.jp/csr/environment.php#green
- 5) Restricted substances in packaging materials (Appendix A-V) URL: <u>http://ce.citizen.co.jp/csr/environment.php#green</u>
- 6) Exceptions (Appendix A-VI)
- (2) Confirmation of environmental management system

Regardless of whether the supplier has a certification issued by an external certification authority such as ISO14001, CE will confirm if the supplier has an environmental management system or a definite plan to establish it.

Primary suppliers are expected to take responsibility for requesting that secondary suppliers comply with the provisions of the Green Procurement Standard.

- 4. Request to Suppliers
 - (1) Confirmation of Green Materials and Document Submission
 - 1) Environmental Activity Survey Form

To check the supplier's environmental management system and non-use of hazardous substances in process, CE's Purchasing Division will send an Environmental Activity Survey Form as needed.

2) Non-Use of environment-affecting substances to be controlled Certificate

Materials which contain Banned substances or Substances to be controlled above the threshold level are not allowed to be purchased. Materials, which have been manufactured in a process in which Substances banned in manufacturing processes are used, are not allowed to be purchased, either. Before commencing business with CE, please submit a Non-Use of environment-affecting substances to be controlled Certificate, which corresponds to Environment-affecting substances to be controlled. Please visit our website to obtain the submission format.

URL: <u>http://ce.citizen.co.jp/csr/environment.php#green</u>

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3) chemSHERPA-AI

As a general rule, please submit data on the materials delivered to CE with the tools recommended by JAMP. In principle, components must be 100% disclosed. The tools to submit data recommended by JAMP are found at the following link.

URL: https://chemsherpa.net/tool

4) SDS

An information sheet listing items such as the chemical substance name, physical and chemical characteristics, hazardous properties and handling instructions, etc.

If anything is revised, please submit the latest version (which corresponds to GHS) with or without receiving a request from CE.

5) Mill sheet

Please submit an inspection certificate of steel products.

6) Data of detailed analysis (See Table 1. below)

- Please make an analysis for each homogeneous material.

- As for plating, please analyze surface treatment (plating) on the metal base material because the plated film becomes too thin to separate completely after plating. However, analysis data for the plating solution is not accepted.

- Please analyze liquid materials such as ink, paint, adhesives in a dried or hardened condition, because the density of such substances may change after drying or hardening.

- Please analyze solder wire, bar solder or solder paste by separating the alloy and the flux, because the alloy must comply with RoHS regulation and the flux must comply with RoHS and the halogen regulations.

- As for Phthalates (DEHP,BBP,DBP,DIBP) in inner packaging materials, only those in packaging materials that touch the product directly are targeted.

- CE's person responsible in the environmental survey will inform if the purpose of your packaging material is "inner" or "outer."

- X-ray Fluorescence (XRF) is not accepted as an analysis method.

- Please use a third party analysis institution accredited with ISO/IEC17025.

- Analysis data is required to be submitted in English. If it is written in multiple languages, please include English.

- The expiration date of the analysis data will be within one year of the measurement date. Please update data annually.

- In cases where CE's customers impose time limits on the validity of analysis data or require additional analysis data of substances other than specified below, suppliers may be requested to resubmit data as needed.

Example: Arsenic (only glasses), beryllium (metal and alloy), PFOS、PFOA (ink/paint) etc.

- Photos in analysis data must be in color.

- Modification or forgery of data is prohibited.

- Any costs incurred for the reporting of analysis are paid by suppliers.

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Analysis method	IEC62321						EN14	1582				
Laws	RoHS		ions/Eur Decembe	•						of 20	Halo	ogen
Target substances	Cd	Pb	Cr6+	Hg	PBB	PBDE	DEHP	BBP	DBP	DIBP	Br	Cl
Metals, ceramics Glass, plating	~	~	~	~								
Other than those above	~	~	~	~	~	~	~	~	~	~	~	~
Inner packaging material	*	~	~	~			~	~	~	~		
Outer packaging material	~	~	~	V								

Table 1. Detailed analysis

7) Submission of other documents

- Depending on a specific material or purpose, CE's person responsible for the environmental survey may request a document regarding contents which are not included in this standard. (Instructions related to format to be used, submission deadline and place of submission will be on an individual basis)

- With changes in laws and regulations, suppliers may be asked to re-submit various certificates or data sheets.

(2) Handling of data

Note that CE may forward any information provided by suppliers to its own customers.

(3) Inclusion in specifications, etc.

Please specify "This product complies with Green Procurement Standard issued by Citizen Electronics" in specifications/drawings submitted to CE.

(4) In cases where another response is required due to requirements different from those contained in Green Procurement Standard

Depending on the customer's specific requirements or national and international laws and regulations, another response may be required to satisfy the requirements different to those of these standards.

- (5) In cases where any product is found not to comply with our environmental requirements In cases where it is found that any substances banned by us are contained or substances to be controlled above the threshold level are contained in materials, please inform CE immediately.
- (6) In cases where any change related to environmental issue has occurred In cases where any change has occurred in products supplied to CE, please inform the person responsible in our Purchasing Division in advance.
- (7) Request for negotiation from customers

If CE receives a request for negotiation from a customer, it will be reviewed separately.

(8) Revision of Green Procurement Standard

When the standard is revised, please submit a Certificate of Non-Use of Banned Substances and Confirmation. Information in Green Procurement Standard and its appendix is subject to change without notice.

When you use, please visit our website to obtain the latest version.

URL : <u>http://ce.citizen.co.jp/csr/environment.php#green</u>

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5. Contact for inquiries

For inquiries regarding the content of the Green Procurement Standard, please contact: ISO System Section, Quality Assurance Division Citizen Electronics Co., Ltd. 1-23-1, Kamikurechi, Fujiyoshida-shi, Yamanashi, 403-0001, JAPAN E-mail : cej-kankyo@ml.citizen.co.jp (Changed since Ver.13)

6. Definition of terms

Term	Definition
Environment-	Among the substances contained in parts and materials or used in the manufacturing
affecting substances to be	process, "environment-affecting substances to be controlled are those which CE
controlled	determines have significant environmental impact (element) on both humans and the
	global environment.
	They are classified into Banned substances, Substances to be controlled, Monitored
	substances and Substances banned in manufacturing processes.
Banned substances	Substances of which use and manufacture are banned by national and international
	laws and regulations, and of which the presence in or adhesion to supplied products is
	also banned without conditions.
Substances to be controlled	Substances, which are target substances of national and international laws and
	regulations or our self-imposed regulations. A ban/threshold is set out for each
	application.
Monitored substances	Substances of which the consumption needs to be monitored and for which
	consideration of with regard to human health, safety and hygiene, adequate treatment,
	etc. is needed. The intentional use of these substances is not restricted, but their use
	and concentration should be monitored.
Substances banned in	Substances of which use is banned in the production processes of parts and raw
manufacturing processes	materials.
Contained	"Contained" is a situation in which a substance is added to, is blended with, fills up, or
	adheres to the parts or products to be present, regardless whether the situation is
	intentionally created or not.
Impurity	An "Impurity" is a substance that satisfies either or both of the following conditions: a)
	One contained in a natural material, which cannot be completely removed in a refining
	process by technical means; and b) One generated in a refining process or a synthetic
	reaction process, which cannot be completely removed by technical means.
Intentionally added	To add substances intentionally to obtain specific characteristics, appearance, nature or
	quality. They are not treated as "intentionally added" if not present in the part or the
	product. Impurities are not included.
Threshold level	A condition of which control is required, or for which a concentration limit value is set.
	The maximum concentration level at which the presence of a substance is permitted.
Detailed analysis	Detailed analysis is a test which uses equipment with high precision, and it may be
	different from a screening test which uses XRF equipment, etc. which indicates an
	approximate concentration of a specific substance. Specific examples of analysis
	equipment are AAS, ICP, IC, UV/VIS for inorganic compounds, and GC/MS for organic
	compounds.
Organic compound (Organic	General term for chemical compounds that have molecules containing ato ms of carbon.
material)	Examples are plastic, rubber and ink, etc.

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Inorganic compound	General term for chemical compounds which are not the (above described) organic
(Inorganic material)	compounds. Examples are metal, alloy and ceramics, etc.
Homogeneous material	A material of uniform composition throughout. It is a single material that cannot be
	separated into different materials by mechanical means (such as screwing, cutting,
	pressing, crushing or grinding).
	Examples are plastic, ceramic, glass, metal, paper, plank, resin, and paint, etc.
Packing material	Materials which CE purchases for the purpose of packing products, etc.
Part	Article in process and prior to being finished good (final good which is produced by
	combining and processing chemical goods and/or parts)
Material	Substance or compound in product or part
Article	An object, which during production, is given a special shape, surface or design which
	determines its final function to a greater degree than does its chemical composition
Product	A part or finished goods which an organization delivers to a customer as the result of
- Todace	its activity.
Plastic	Material made from synthetic polymers. Examples are fiber, film, adhesive tape,
	molding product, synthetic rubber product, plastic made from plant material, and
	adhesive.
ISO/IEC17025 analysis	Analysis institution which is accredited by a third party that it complies with
institution	"ISO/IEC17025 General requirements for the competence of testing and calibration
	laboratories."
IEC62321	The standard of "Determination of certain substances in electrotechnical products" by
	IEC (International Electrotechnical Commission).
SVHC	The abbreviation for Substance of Very High Concern.
	Candidate list of substances of very high concern for authorization defined by Article 59
	of REACH Regulation, which are selected from substances fulfilling the criteria defined
	in Article 57.
JAMP	The abbreviation for the Joint Article Management Promotion-consortium.
chemSHERPA AI	A data submission sheet provided by JAMP which is used for transmitting data on
	chemical substances contained in an article.
	It has information items like "Regulation name," "Existence" of substances to be
	controlled, "Substance name," "CAS Number" and "Concentration" and is used within a
	supply chain.
chemSHERPA CI	A data submission sheet provided by JAMP which is used for transmitting data on
	chemical substances contained in chemicals and mixture.
	It has information items like "Regulation name," "Existence" of substances to be
	controlled, "Substance name," "CAS Number" and "Concentration" and may be used
	with SDS to transmit information.
SDS	The abbreviation for Safety Data Sheet. Previously it was called MSDS. It is a
	document to provide information about characteristics and handling of possibly
	hazardous chemicals included in products.
GHS	The abbreviation for the Globally Harmonized System of Classification and Labelling of
	Chemicals. It is an internationally harmonized system to classify chemicals and provide
	information by labels or safety data sheets (SDS). It was reviewed at the United
	Nations GHS Sub-Committee, developed in 2002 as United Nations GHS document, and
	was adopted in 2003.
Mill sheet	A document that certifies materials of metal.

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CAS No.	The abbreviation for Chemical Abstract Service registry Number.
	It is a unique numerical identification number for each chemical substance specified by a
	registration system of chemical substances managed by American Chemical Society.
Kashin-ho (Japanese)	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
TSCA	The United States' Toxic Substance Control Act
EU-ELV Directive	The abbreviation for EU End of Life Vehicle Directive.
	It aims to eliminate hazardous substances in the process of design and manufacture,
	which prevent recycling of vehicles.
	Targeted substances are lead, mercury, cadmium and hexavalent chromium.
RoHS Directive	Restriction of Hazardous Substances Directive
	EU legislation restricting the use of hazardous substances in electrical and electronic
	equipment.
REACH Regulation	EU Registration, Evaluation, Authorization and Restriction of Chemicals
	Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the
	Registration, Evaluation, Authorization and Restriction of Chemicals
GADSL	The abbreviation for Global Automotive Declarable Substance List
	A list of substances used for vehicles of which use is restricted or undesirable, and of
	which disclosure of use is agreed by the chemical industry and the automotive industry.
	URL:http://www.gadsl.org
IEC62474	International standard for the exchange of material composition data provided by
	Technical Committee 111 of IEC (International Electrotechnical Commission). It is a
	standard for transmission of data on hazardous substances contained in electrical and
	electronic products.
MDR : (EU) 2017/745	Substances specified in ANNEX I 10.4 of Medical Device Regulation of EU: (1) CMR
	Category 1A/1B Substances in ANNEX VI Part 3 of CLP (EC) 1272/2008. (2) Substances
	listed in Candidate List for Authorization in Article 59 of (EC) 1907/2006 due to their
	endocrine-disrupting properties for humans. (3) Substances approved by EU based on
	Delegated Act in accordance with the first subparagraph of Article 5 (3) of Biocidal
	Product Regulation (BPR).
California Proposition 65	It is an act to protect residents of California from being exposed to chemicals known to
	cause cancer and birth defects.
Volatile organic compounds	It is a general term for organic compounds that have volatility and that vaporize in the
(VOC)	air. They include toluene, xylene, ethyl acetate and other various compounds.
GB Standards	It is a common name for China National Standards. GB30981, GB33372, GB38507 and
	GB 38508 set limits on content of VOC in target products.

7. Records of environmental issues

1) Below documents are maintained as records of environmental issues.

Record name	Name in this document	
List of target chemicals	Appendix A	
Non-Use of environment-affecting substances to be controlled Certificate	Appendix B-1	
Letter to suppliers	Appendix B-2	

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GEW-0003 付属書 A-1 対象	化学物質	一覧 記載例	
Appendix A list of target ch	nemical s	ubstances	
	管 理 番号	物質グループ名	Substance group name
付属書 A- I _禁止物質 Appendix A-I Banned substances 附属书 A- I _禁止物质	001	オゾン層保護法 特定物質_議定書附属書 A グルー プ I (特定フロン CFC) (ODS) オゾン層保護法 特定物質_議定書附属書 A グルー プⅡ	Ozone Layer Protection Act Specified Substances _ Protocol Annex A Group I (Specific Fluorocarbons) (ODS) Ozone Layer Protection Act Specified Substances-Protocol Annex A Group II
付属書 A- Ⅱ_管理物質 Appendix A- Ⅱ	001	電池(バッテリ)EU・電池指令(2006/66/EC)(対 象:鉛、水銀、カドミウム)	BatteriesEuropean Union. Batteries Directive 2006/66/EC. (Pb,Hg,Cd)
Substances to be controlled 附属书 A- II _控制物质	002 003	カドミウム及びその化合物	Cadmium and cadmium compounds
付属書 A-Ⅲ_把握物質 Appendix A-Ⅲ Monitored substances 附属书 A-Ⅲ_控制物质	LR01 LR02	日本 化審法 第一種特定化学物質	Class I Specified Chemical Substances under the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacturer, etc. (CSCL) (Japan)
付属書 A-Ⅳ_製造工程禁止 物質/使用回避物質 Appendix A-Ⅳ Substances banned in manufacturing processes ∕Substances to avoid use	製 走 程 禁 近 質		
附属书 A-Ⅳ_制造工程禁止 使用物质/使用回避物質			
付属書 A-V_梱包材 Appendix A-V Packing material 附属书 A-V_包装材料	梱 包材	容器包装指令「包装および包装廃棄物に関す る欧州議会および理事会指令」 (対象:鉛、水銀、カドミウム、六価クロム) (梱包材規制対象物質)	European Parliament and Council Directive 94/62/EC of 20 December, 1994 on packaging and packaging waste (Pb,Hg,Cd,CrVI) (Packaging material regulated substance)
付属書 A-VI_欧州 RoHS 指 令適用除外 (ANNEXⅢ) Appendix A-VI_EU RoHS Directive (ANNEXⅢ) 附属书 A-VI_欧洲 RoHS 指 令适用除外 (ANNEXⅢ)	1~44		

Appendix B-1 Non-Use of environment-affecting substances to be controlled Certificate Return to: Citizen Electronics Co., Ltd.

Non-Use of environment-affecting substances to be controlled Certificate

Date	:	Y	М	D
Company name	:			Seal
Address	:			
Person responsible	:			
E-mail address	:			
TEL	:			

This is to certify that none of the materials that we (including our subsidiaries and affiliated companies) deliver to you directly or through a third party include environment-affecting substances to be controlled that are listed in the following appendixes of Citizen Electronics 'Green Procurement Standard, Version XX'

Appendix I: Banned substances

Appendix II: Substances to be controlled (exceeding the threshold)

Appendix IV: Substances banned in manufacturing processes

Appendix V: Restricted substances in packaging materials

[Parts covered by this certificate]

No.	Part name	Part code/Part Number
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Note: If there is insufficient space, please list on a separate sheet and attach to this document.

Appendix B-2 Letter to Supplier Example entry

To Suppliers:

XXXX/XX/XX

Akira Yoneyama Manager of Production Management Division CITIZEN ELECTRONICS CO., LTD

Release of the Citizen Electronics Green Procurement Standard, Version XX and Request for Submission of Confirmation and Non-Use of environment-affecting substances to be controlled Certificate

Thank you for your continued cooperation with respect to Citizen Electronics' green procurement activities. We would like to inform you that Citizen Electronics "Green Procurement Standard" (Version XX) was issued on XX XX, XXXX.

Accordingly, we ask you to submit confirmations as stated below.

1. Forms to be submitted

- 1) 'Confirmation' : Please refer to the bottom of this sheet
- 2) 'Non-Use of environment-affecting substances to be controlled Certificate' : Please refer to the accompanying sheet

Please complete the forms with your company seal, and send to us by email in PDF format. PDF format is mandatory.

2. Location of the latest "Green Procurement Standard" of Citizen Electronics You can view the document on the following website. http://ce.citizen.co.jp/csr/environment/green.html

3. Inclusion in specifications

Please explain explicitly with regard to banned substances in specifications submitted to us as follows: "This product complies with Green Procurement Standard (GEW-0003) issued by Citizen Electronics" For more details such as in which section the above sentence should be included, please contact one of the persons responsible for design.

4. Changes in the composition list

In line with the Citizen Electronics "Green Procurement Standard, Version 13.0", when updating a composition list that you have already provided us with, please submit the updated data by chemSHERPA. For details, please see the Explanation for entry to be submitted to Citizen Electronics Co., LTD. and chemSHERPA CI/AI Ver. (latest version) via the website described in 2. above.

5. Request for announcement to your suppliers

We ask you to ensure that your suppliers familiarize themselves with the contents of the revised standard as needed.

6. Contact information
ISO System Group, Quality Assurance Division
CITIZEN ELECTRONICS CO., LTD.
1-23-1, Kamikurechi, Fujiyoshida-shi, Yamanashi, 403-0001, JAPAN
TEL: +81-555-22-9910
E-mail : cej-kankyo@ml.citizen.co.jp

Confirmation

We have read the contents of the "Citizen Electronics Green Procurement Standard, Version 13.0" as requested by your company in the letter "Release of the Citizen Electronics Green Procurement Standard, Version XX"

Date : Company name : Title of person responsible: Name of person responsible :

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Revision history

Revision		Revised	Description	Annavad	Increated	Droporod
number	Date	page	Description	Approved	Inspected	Prepared
12	2018/03/30	Cover	One version number and one issued date in two places	H.Toyama	K.Kawamura	T.Kobayashi
		P1	deleted due to duplication.			
		P2	Revised table of contents because of update in the			
		P4	Appendix			
		P5	3_ "Banned substances in the production process"			
		Appendix	added			
			5.3_Update management of SDS added by customer's			
			request in an audit			
			10_"Inspection" added.			
			All pages updated to meet customer's requirement in			
			an audit			
		-	Phthalates are added to the packing material			
13	2019/08/09	All pages	Revised all pages according to a part of the standard of	A. Shiraishi	Y. Hirayama	T.Kobayashi
			Citizen Group to achieve consistency and simplification			
			of revising.			
		P2	Simplified description of Environment-affecting			
			substances to be controlled.			
			"Restricted substances in packaging materials" are			
			added to Environment-affecting substances to be			
			controlled.			
			Deleted "AMP MSDS plus or AIS" because it is not			
			necessary.			
			Deleted "Application form for permission to use			
			recycled materials" because it is not used.			
		Р3	Specified detailed analysis of plating, ink, paint,			
			adhesive and solder, etc.			
			Specified detailed analysis of "inner packing" and			
			"outer packing."			
			Added the party which pays the costs of analysis			
			reporting.			
		P4	Revised "Contact for Inquiries" according to the change			
			of the department name.			
			Specified documents to submit at the time of revision			
			of "Green Procurement Standard"			
		P4-P5	Added "Intentionally added," "Threshold level," and			
			"Detailed analysis", etc. to Definition of Terms.			
14	2020/8/27	Cover	Added Table of Contents	T. Watanabe	S.	Т.
		P2	4. (1) 2) "Substances to be controlled" is changed into		Watanabe	wakatsuki
			"Substances to be controlled above the threshold level"			
		P6	Added terms to Definition of Terms. Added 7. Records			
			of environmental issues			

Appe	endix Included Appendix A, Appendix B-1 and Appendix B-2 / in the Standard	
Арре	endix	
B-1/		
Арре	endix	
B-2		
Revis	sion "Revision history" is changed into "Revision	
man	age management list"	
men	t list	