



SES-QUA-0009-H

SOSHIN ELECTRIC Group

Green Procurement Guidelines

Version 8

双信電機株式会社
SOSHIN ELECTRIC CO., LTD.

SOSHIN DEVICE CO., LTD.

SOSHIN POWERTECH CO., LTD.

RISSHIN ELECTRONICS CO., LTD.

SOSHIN ELECTRONICS (M) SDN. BHD.

SOSHIN ELECTRONICS (SZ) LIMITED

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[Appendix: SOSHIN ELECTRIC Group List of Environmentally Controlled Substances]

Introduction

The SOSHIN ELECTRIC Group considers the conservation of the global environment as one of the most important issues facing management, and we have striven to make continued efforts to improve the environment through the development, design, manufacturing, and sale of our products, and other corporate activities.

The recent surge in social interest in environmental issues, coupled with the strengthening of environmental regulations in the EU and other countries, have raised the bar for the social responsibility considerations required of companies as they conduct their corporate activities.

The SOSHIN ELECTRIC Group views green procurement as a key role for companies to fulfill, and has revised its Green Procurement Guidelines to reduce the impact of its materials procurement on the environment.

Looking ahead, the SOSHIN ELECTRIC Group will comply with laws and regulations based on its Green Procurement Guidelines, and will work to procure materials (parts, secondary materials, packaging materials, etc.) with limited environmental impact from business partners that actively promoted environmental load reduction activities. Further, with the requirement to establish an environmental management system, implement CO₂ reduction activities, measures that address the drain on water and other resources, and initiatives that tackle biodiversity and conflict minerals, we ask our business partners to likewise actively implement measures to address

these issues.

This cannot be achieved without the understanding and the promotion of similar initiatives by our business partners.
We humbly ask for your cooperation and support in this matter.

SOSHIN ELECTRIC CO., LTD.
Procurement Division
Environmental Control Department

1. Revision History

Version 1 May 21, 2004

Version 2 September 19, 2006

Main changes: Changed the list of chemical substances under investigation from JGPSSI Ver.2 to the JIG-compatible Ver. 3.

Version 3 January 13, 2010

Main changes: Changed the list of chemical substances under investigation to JIG-101 ED2.0 Ver. 4.

Adopted JAMP AIS, MSDSplus to comply with REACH Regulations.

Version 4 January 1, 2012

Main changes: Changed the list of chemical substances under investigation to JIG-101 ED4.0.

Added dibutyltin compounds (DBT) and dioctyltin compounds (DOT) to the list of prohibited substances.

Adopted JIG-201 Ed1.0 for substances prohibited for use in packaging.

Version 5 December 1, 2013

Main changes: Changed the List of Environmentally Controlled Substances to Appendix [SOSHIN ELECTRIC Group List of Environmentally Controlled Substances].

Changed the list of chemical substances under investigation from JIG-101 to the JAMP list of controlled substances.

Changed the processing method for analysis data on prohibited substances to the IEC62321 standard.

Version 6 April 1, 2016

Main changes: Removed batteries and substances prohibited from use in batteries, and removed article SDS (MSDS) requirements.

Revised the Appendix [SOSHIN ELECTRIC Group List of Environmentally Controlled Substances].

Version 7 September 1, 2018

Main changes: Added the common scheme chemSHERPA.

Version 8 September 30, 2021

Main changes: Added control symbols

Moved revisions to item 1

Added chemSHERPA controlled substances to term definitions

Changed the investigation data format

Changed the investigation documents

Corrected the expression used for environmental data submissions conditions, added “when procuring supplies for the first time in a while”

Changed JAMA sheet to JAPIA sheet

Added the supplier form to warranty instructions

Added note on FMD: Full Material Declarations

Added sample photos to high-precision analysis data

Changed the point of contact from the Environmental Control Office to the Environmental Control Department

Revised the Appendix [SOSHIN ELECTRIC Group List of Environmentally Controlled Substances].

2. Environmental Activities of the SOSHIN ELECTRONICS Group

Management philosophy

SOSHIN WAY - Connecting people with the future through communication

We are committed to protecting the harmony between people and the earth through a cycle of mutual trust toward the “realization of a society where we can co-exist with the environment.”

Each and every employee actively works on their own accord to reduce greenhouse gas emissions in an aim to achieve zero emissions in order to establish a SOSHIN ELECTRIC Group oriented toward acquiring green parts to leave a smaller, more environmentally-friendly footprint.

(Excerpt from the section on the environment)

Environmental policy

- Observance of laws, agreements, and arrangements established with customers, and of self-defined standards
- Definition of environmental targets with local communities in an organized and continual manner to reduce environmental loads together
- Development, designing, manufacturing, and marketing of eco-friendly products
- Exercising and monitoring efforts to prevent environmental pollution
- Promoting education and awareness-raising activities for employees and those involved in the business activities of the SOSHIN ELECTRIC Group to establish a higher level of conscious toward their roles and responsibilities.

3. Green Procurement Objectives of the SOSHIN ELECTRIC Group

We aim to provide our customers with environmentally-friendly products by designing and developing products with a low environmental impact through the promotion of Green Procurement.

As part of these efforts, we promote prioritizing the procurement of materials and parts with a low environmental impact from suppliers involved in environmental conservation. These Guidelines outline the SOSHIN ELECTRIC Group’s basic approach to Green Procurement, and details the specific requirements we ask of our supplier partners.

The SOSHIN ELECTRIC Group shares issues concerning environmental conservation activities with our suppliers while implementing these activities alongside our partners in the spirit of mutual cooperation based on these Guidelines. As such, we will prioritize the use of products and services from suppliers that engage in business activities with a greater awareness of their impact on the environment.

4. Scope of Application of Green Procurement

- (1) Parts (electrical and mechanical parts, semiconductor devices, PWBs, wires, metal cases, screws, plated goods, and molded plastics)
 - (2) Secondary materials used in products (coating material, adhesives, solders, pastes, plastic materials, and materials used for ceramics), other materials.
 - (3) Packaging materials (trays, reels, bags, cushions, cartons, tapes, labels, printing ink, and other materials).
- * Facilities, tools, dies, molds and other tools for which there is no possibility of being contained in products are exempt.

5. Start of Application

These Guidelines will take effect on October 30, 2021.

6. Environmentally Controlled Substances

(1) Categories of environmentally controlled substances, and list of environmentally controlled substances

Environmentally controlled substances are classified as substances prohibited for use, controlled substances, and substances not to be contained in packing/packaging materials.

See the Appendix [SOSHIN ELECTRIC Group List of Environmentally Controlled Substances] for details.

(2) Definition of terms

- Substances prohibited for use: Chemical substances prohibited under the scope of application of Green Procurement.
- Controlled substances: Chemical substances whose use, and amount of use, must be maintained to within the scope of application of Green Procurement.
- Substances not to be contained in packing/packaging materials: Applicable to packing/packaging materials used within the scope of application of Green Procurement.
- Homogeneous materials: Materials that cannot be separated into different materials by mechanical means. Here, homogeneous is used to mean “uniform in composition throughout.”
- Intentionally added: This refers to the intentional use of a substance in the formulation of a product where its continued presence is desirable in order to provide a specific characteristic, appearance, or quality.
- Threshold level: Concentration levels which define the limit above (or equal to) which the presence of a substance in a product shall be declared based on the requirement of these Guidelines. Numerical threshold levels are provided as a percentage of the weight (%) and parts per million (ppm). 1000 ppm converts to 0.1%.
- IEC62474:
 - One of the standards published by the International Electrotechnical Commission (IEC).
 - This document serves as a successor to the JIG-101 (Material Composition Declaration Guide for Electrotechnical Products), and specifies material declarations related to products and the electricity/electrical industry.
- chemSHERPA:
 - A scheme for communicating information on chemical substances in products developed under the supervision of the Ministry of Economy, Trade and Industry. This scheme is currently managed by JAMP (Joint Article Management Promotion-consortium).
- chemSHERPA-AI: A format for the transfer of information on molded goods
 - Composition information: Content rate (amount) of chemical substances contained in products, parts, and materials
 - Compliance information: Determines whether products contain substances subject to specific legal regulations and industry standards.
- chemSHERPA-CI: A format for the transfer of information on chemicals
 - Composition information: Content rate (amount) of chemical substances contained in products, parts, and materials
- chemSHERPA controlled substance:
 - List of substances regulated by the laws and regulations of the following countries. chemSHERPA determines whether products contain controlled substances based on this list.

Japan: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. -
Class I Specified Chemical Substances

U.S.: Prohibited or restricted substances under the Toxic Substances Control Act (Article 6)

EU: ELV Directive

EU: RoHS Directive - Annex II

EU: Convention on POPs - Annex I

EU: REAH Regulations - Candidate List of Authorization (candidate substances subject to approval)
and Annex XVII (substances subject to approval)

EU: REACH Regulations - Annex XVII (restricted substances)

EU: Medical Devices Regulation (MDR) - Annex I 10.4 Chemical Substances

Global Automotive Declarable Substance List (GADSL)

IEC62474DB Declarable substance groups and declarable substances

- JAPIA Standard Material Datasheet (hereafter, JAPIA Datasheet):

Format provided by JAPIA (Japan Auto Parts Industries Association) for inspecting chemical
substances contained in parts and materials.

7. Requests for Business Partners

(1) Management system for environmentally controlled substances

1) Request for cooperation concerning supplier environmental evaluations

SOSHIN ELECTRIC performs evaluations of the supplier's management system before commencing
business and periodically thereafter.

To better understand your management system, please fill out and send back the check list we will send
you.

If an on-site inspection is deemed necessary, please assist our inspection team with the inspection.

2) Control of environmentally controlled substances

We request that all goods delivered to us are in compliance with the relevant laws and regulations, and that
all substances contained within said goods is understood and controlled in accordance with the Appendix
[SOSHIN ELECTRIC Group List of Environmentally Controlled Substances].

In addition, even with regard to catalog items, we ask suppliers to contact us in advance with information
on substances included in information on controlled substances provided at the time of initial negotiations,
and information on sub-contracting suppliers, that may potentially come into conflict with the list of
controlled substances due to revisions to laws and regulations.

3) Prevention of mixture and contamination of environmentally controlled substances

We ask that environmentally controlled substances are identified and controlled to prevent their mixture and
contamination.

In addition, recycled materials may be used subject to prior verification of their contents and retention of
their production history. (Please refer to the individual specifications for the use of recycled materials.)

4) Change control

Changes to goods delivered to SOSHIN ELECTRIC may only be applied based on a contractual agreement following the Company's approval of change proposals submitted to the Procurement Department.

(2) Control of suppliers and their sources (hereafter, second-tier suppliers)

We request that the requirements and information provided by SOSHIN ELECTRIC, including those in these Guidelines, are clearly communicated to second-tier suppliers, and that guidance and understanding of the management system in place at said second-tier suppliers is maintained.

(3) Activities to determine and reduce CO₂ emissions

The reduction of CO₂ emissions is now a pressing issue from the perspective of preventing global warming. We request that suppliers endeavor to maintain an understanding of, and reduce CO₂ emissions as part of their business activities. Suppliers may be requested to submit information concerning their progress in these efforts.

(4) Promotion of water risk management

In addition to water pollution and other pollution-prevention efforts, a broad range of water-related issues, including water shortages and flooding, have grown more serious in recent times, and there is increased demand for companies to take water risks into consideration.

We ask our suppliers to also make efforts to control water risks, and to provide information on the progress of said efforts should such a request be made.

(5) Biodiversity conservation initiatives

The importance of biodiversity is being increasingly stressed in recent time, and companies are also called upon to implement biodiversity preservation initiatives.

Suppliers may also be requested to submit information concerning their progress in these efforts.

(6) Contained chemical substances investigations

We ask for your cooperation in providing information on the contents of chemical substances as prescribed in the [SOSHIN ELECTRIC Group List of Environmentally Controlled Substances]. Please submit the requested survey documents as soon as possible.

* You may be requested to analyze and examine individual items at the request of our clients.

Investigation documents

(1) Parts (articles)

Submission conditions	Classification	Document titles	Standard /Management body, etc.	Remarks
Initial negotiations Amendments to laws and regulations Submission of change proposals When article is supplied for the first time in a while (around three years or more)	Information on controlled substance content	chemSHERPA-AI	JAMP	The latest revision must be complied with
	Analysis data of substances restricted or prohibited by law	Highly accurate analysis data specific to each homogeneous material location* (Analysis report using ICP analysis, GC-MS, or other highly accurate means of analysis: 10 substances prohibited under the RoHS Directive)	Reports must be issued by ISO/IEC17025-certified analysis laboratories (general requirements concerning the competence of testing and calibration laboratories)	Analysis data of four heavy metals (Pb, Cd, Hg, and Cr6+) is sufficient for ceramic products, and metal products which do not use bromine-based flame retardants (PBBs, PBDEs) and four substances of phthalic esters.
When requested by SOSHIN ELECTRIC	Information about chemical ingredients	JAPIA	JAPIA datasheet	The latest revision must be complied with
	Letter of guarantee	Certificate for the non-use of prohibited substances	-	Format set by SOSHIN ELECTRIC or the supplier

(2) Secondary materials used in products (substances, preparation)

Submission conditions	Classification	Document titles	Standard /Management body, etc.	Remarks
Initial negotiations Amendments to laws and regulations Submission of change proposals When article is supplied for the first time in a while (around three years or more)	Information concerning the characteristics and handling of chemical products	SDS	JIS Z 7253	The latest revision must be complied with
	Information on controlled substance content	chemSHERPA-CI	chemSHERPA-controlled substance	The latest revision must be complied with If chemSHERPA-CI cannot be provided, report the content of substances specified as chemSHERPA-controlled substances.
	Analysis data of substances restricted or prohibited by law	High-precision analysis data (Analysis report using ICP analysis, GC-MS, or other highly accurate means of analysis: 10 substances prohibited under the RoHS Directive)	IEC62321 etc	Reports must be issued by ISO/IEC17025-certified analysis laboratories (general requirements concerning the competence of testing and calibration laboratories). A copy of the IEC17025 certificate must be attached to the high-precision analysis report.
	Letter of guarantee	Letter of guarantee issued when a certificate for the non-use of prohibited substances which, if chemSHERPA-CI cannot be provided, states that chemSHERPA-controlled substances are within regulatory limits.	chemSHERPA-controlled substance	

Submission conditions	Classification	Document titles	Standard /Management body, etc.	Remarks
When requested	Information about ingredients	JAPIA datasheet	JAPIA	The latest revision must be complied with
		chemSHERPA-CI	chemSHERPA-controlled substance	The latest revision must be complied with

When suppliers are requested to survey the response to changes in laws and regulations of various countries and changes in restricted materials issued by industry bodies, suppliers are asked to provide full material declarations (FMD) containing information on all chemical substances constituting products subject for review in order to alleviate the burden on clients during re-investigations.

Information on all chemical substances refers to the names and CAS numbers of materials constituting 100% of all parts of the product provided.

[Requirements for high-precision analysis data]

The following items must be included in the report:

- 1) Pre-processing method:
Name of the official method used. If a method other than the official method is used, please provide the name of the method used.
- 2) Analysis method:
Name of the analysis method used, or the official method.
- 3) Name of analyzer:
Name of the person and laboratory responsible for the analysis, and the ISO/IEC17025 certificate number
- 4) Date of analysis:
Provide analysis data within one year of the analysis date.
- 5) Analysis result:
Lower limit value for quantification in the case of ND.
- 6) Analysis flowchart:
The specimen used for pre-processing for analysis must be completely solved into solution. This shall be stated as “complete dissolution” on the analysis report or analysis flowchart.
- 7) Analysis of plating:
Plating must be analyzed separately for both the plating film and the base material.
(Analysis results will vary significantly when analyzing the plating film and base material at the same time)
- 8) Photo of the analysis sample:
Provide a photo showing the external appearance of the sample to be analyzed before analysis.

8. Inquiries

For more information, please contact us at:

Environmental Control Department, SOSHIN ELECTRIC CO., LTD.
664-1 Sarukubo, Saku City, Nagano
TEL: (+81) 267-67-4580
FAX: (+81) 267-68-4553
Email: environment@soshin.co.jp

[Appendix: SOSHIN ELECTRIC Group List of Substances with Environmental Controls]

Revision History

April 1, 2016

- Main changes: (1) The following five substances were revised from controlled substances to banned substances
Hexabromocyclododecane (HBCDD), bis phthalate (DEHP), dibutyl phthalate (DBP), butyl benzyl phthalate (BBP), diisobutyl phthalate (DIBP)
(2) Removed the exclusion for dibutyltin compounds (DBT)
(3) Removed prohibited substances for battery use

September 1, 2018

- Main changes: (1) Reviewed threshold levels to match IEC62474 and chemSHERPA
(2) Added phthalates (DEHP, DBP, BBP, DIBP) to prohibited substances for use as packaging materials

October 30, 2021

- Main changes: (1) Added substances No. 31–39 to the list of prohibited substances
(2) Standardized the threshold level for prohibited use as an expression in ppm
(3) Changed the regulatory content concerning the threshold for prohibited use from “intentionally added” to “prohibited for use”
(4) Corrected the link destination for No. 20 ozone-depleting substances
(5) Added “tin equivalent” to the threshold level for prohibited use for No. 6–8
(6) Added 6 (b) to the excluded items in accordance with the RoHS Directive
(7) Moved the Revision History to the beginning of the text
(8) Changed prohibited from intentionally adding for use to prohibited for use

(1) Substances prohibited for use (chemical substances prohibited for use in parts and secondary materials)

No.	Substance	Threshold level for prohibited use (1000ppm = 0.1 weight %) (100ppm = 0.01 weight %)	Application
1	Cadmium/cadmium compound	100 ppm in homogeneous medium	Coating material, ink, conductive paste, plastic (rubber, film, cable covering, adhesive, adhesive tape, insulating tape), surface treatment (plating, coating), glass frit, glass paste, metals containing zinc (brass, hot dip galvanizing)
		20 ppm in homogeneous medium	Solder (purchased independently)
	Excluded items: Appended table (1)-1: Materials corresponding to the excluded items prescribed in the RoHS Directive		
2	Chromium(VI) compounds	1000 ppm in homogeneous medium	Plating film, coating material, ink, glass paste
3	Lead/lead compounds	100 ppm in homogeneous medium	Coating material, ink, plastic (including rubber, film, cable covering, adhesive, adhesive tape, insulating tape)
		500 ppm in homogeneous medium	Solder (purchased independently)
	1000 ppm in homogeneous medium	Applications other than the above (external component terminals, surface treatment materials for lead wires, etc.)	
Excluded items: Appended table (1)-1: Materials corresponding to the excluded items prescribed in the RoHS Directive			
4	Mercury/mercury compounds	Prohibited for use	All applications (fluorescent light, electrical contact materials, pigment, anti-corrosives, switches, efficient light emitter, antibacterial treatment)
		1000 ppm in homogeneous medium	
Excluded items: Appended table (1)-1: Materials corresponding to the excluded items prescribed in the RoHS Directive			
5	Tributyltin oxide (TBTO)	Prohibited for use	Preservatives, anti-fungal agent, coating material, pigment, stain-resistant agent, refrigerant, foaming agent, fire retardant, detergent
6	Tri-substituted organostannic compounds	Prohibited for use 1000 ppm of the mass of the component in tin	Stabilizer, antioxidant, antibacterial agent, antifoulant, preservatives, anti-fungal agent, coating material, pigment, dyes, stain-resistant agent
	Tri-substituted organostannic compounds is a tin compound with three organic substitutions, and is used to refer to compounds such as tributyltin compounds (TBT) and triphenyltin compounds (TPT).		
7	Dibutyltin compounds (DBT)	1000 ppm of the mass of the component in tin	PVC stabilizer, curing catalyst for silicon resin and urethane resin
8	Diocetyl tin compounds (DOT)	1000 ppm of the mass of the component in tin	PVC stabilizer, curing catalyst for silicon resin and urethane resin
	<p>Substances prohibited for use at the above threshold levels</p> <p>(1) Textile and leather products intended to come into contact with the skin</p> <p>(2) Child care products</p> <p>(3) 2 Vulcanizing molding kit for components at room temperature (RTV-2 sealant molding kit)</p> <p>Note: Metal converted values applied for concentrations within the target range.</p> <p>Exclusions apply to applications independently defined by the Company.</p>		

No.	Substance	Threshold level for prohibited use (1000ppm = 0.1 weight %) (100ppm = 0.01 weight %)	Application
9	Polybrominated biphenyls (PBBs)	1000 ppm of homogeneous medium	Flame retardant
10	Polybrominated diphenyl ethers (PBDEs)	Prohibited for use 1000 ppm of homogeneous medium	Flame retardant
11	Polychlorinated biphenyls (PCBs) and specified substitute substances	Prohibited for use	Insulating oil, lubricant, electrical insulation material, solvent, electrolyte, fire retardant
12	Polychlorinated terphenyls (PCTs)	Prohibited for use 50 ppm of homogeneous medium	Insulating oil, lubricant, electrical insulation material, solvent, electrolyte, fire retardant
13	Polychlorinated naphthalenes (PCNs) (Three or more chlorine atoms)	Prohibited for use	Lubricant, coating material, stabilizer (electrical properties, flame resistance, water resistance), insulating material, flame retardant, etc.
14	Short chain chlorinated paraffins (SCCPs) (C10-C13)	Prohibited for use	PVC plasticizing agent, flame retardant, etc.
15	Perfluorooctane sulfonate (PFOS)	Prohibited for use	Photolithography, photographic coating material, hydraulic fluid, metal plating, detergent, fire retardant, paper coating material
	Excluded items (1) Photoresistant or anti-mirror coating for photolithographic processes. (2) Photographic coating material applied to film, documents, or printing plates.		
16	Perfluorooctanoic acid (PFOA), and its salts and esters	Prohibited for use	Photolithography, photographic coating material, hydraulic fluid, metal plating, detergent, fire retardant, paper coating material
	Applicable substances: Perfluorooctanoic acid (PFOA), and its salts and esters listed in Appended Table (1)-2		
17	Fluorinated greenhouse gasses (PFC, SF ₆ , HFC)	Prohibited for use (Exclusions apply to applications independently defined by the Company)	Refrigerant, spraying material, fire retardant, detergent, insulation material, caustic gas, etc.
18	Asbestos	Prohibited for use	Insulating material, filling material, abrasive, dye, heat insulating material, etc.
19	Azo dye and pigment producing certain aromatic amines	30 ppm of the finished textile/leather product	Pigment, dye, colorant, etc.
	Applicable substances: Azo dye and pigment producing certain aromatic amines listed in Appended Table (1)-3		
20	Ozone-depleting substances	Prohibited for use	Refrigerant, foaming agent, fire retardant, detergent
	For more information on applicable substances, see Appendices A, B, C, and E on P17 to 22 of the Montreal Protocol on Substances that Deplete the Ozone Layer. http://www.env.go.jp/earth/ozone/montreal_protocol.html (Ministry of the Environment website) http://ozone.unep.org/ (UNEP Ozone Secretariat website)		

No.	Substance	Threshold level for prohibited use (1000ppm = 0.1 weight %) (100ppm = 0.01 weight %)	Application
21	2-(2H-1,2,3-benzotriazol-2-yl)-4,6-di-tert-butylphenol (UV-320)	Prohibited for use	Adhesive, coating material, printing ink, plastic, ink ribbon, putty, corking, seal filler (ultraviolet absorbing agent), etc.
22	Dimethyl fumarate	0.1 ppm of the mass of the component	Desiccant, anti-fungal agent, etc.
23	Polyvinylchloride (PVC) and PVC compounds	Prohibited for use	Following applications excluding applications classified for controlled substances <ul style="list-style-type: none"> • Heat-shrinkable tubing (excluding tubing for batteries) • Insulation plate, decorative plate and labels (excluding battery materials) • Bands for bundling accessories, connection cords, etc. • Flexible flat cables (FFC)
24	Beryllium oxide	1000 ppm of the mass of the component	All applications
25	Hexabromocyclododecane	Prohibited for use 100 ppm of the mass of the component	Flame retardant, hardening accelerator, etc.
26	Bis(2-ethylhexyl) phthalate (DEHP)	1000 ppm of homogeneous medium	Plasticizer, etc.
27	Dibutyl phthalate (DBP)	1000 ppm of homogeneous medium	Plasticizer, etc.
28	Butyl benzyl phthalate (BBP)	1000 ppm of homogeneous medium	Plasticizer, etc.
29	Diisobutyl phthalate (DIBP)	1000 ppm of homogeneous medium	Plasticizer, etc.
30	Polycyclic aromatic hydrocarbon (PAH)	1 ppm in plastic or rubber components	Rubber and plastic components that come into direct contact with the skin and mouth for prolonged periods or repeatedly.
	Polycyclic aromatic hydrocarbon (PAH) listed in the appended table of applicable substances (1)-4		
31	Decabromodiphenyl ether (DecaBDE) CAS: 1163-19-5	Prohibited for use	Flame retardant, etc.
32	Phenol, isopropylated phosphate (3:1) PIP(3:1) CAS: 68937-41-7	Prohibited for use	Hydraulic fluid, lubricating oil, lubricant, grease, coating for construction works, adhesive, sealant, plasticizer for plastic products, flame retardant, anti-wear additives, or anti-compressive additives, etc.
33	2,4,6 Tris (tert-butyl) phenol 2,4,6-TTBP CAS: 732-26-3	Prohibited for use	Fuel and fuel-related additives
34	Hexachloro-1,3-butadiene (HCBD) CAS: 87-68-3	Prohibited for use	Mite repellent, etc.
35	Pentachlorothiophenol CAS: 133-49-3	Prohibited for use	Flexibility additives for rubber products
36	Red phosphorus (not treated with a moisture-proof coating) CAS:7723-14-0	Prohibited for use	Flame retardant components in resins
37	Low-molecular-weight cyclic siloxane (D3 to D6) CAS: 107-45-0,556-67-2, etc.	1000 ppm of homogeneous medium	Silicone resin, etc.
38	Hexachlorobenzene (HCB) CAS: 118-74-1	Prohibited for use	Pigment, dye, etc.
39	Prohibited from February 22, 2022 Perfluoro carboxylic acids (PFCAs) and related substances containing 9 to 14 carbon atoms in chain CAS:375-95-1,335-76-2,2058-94-8, 307-55-1,72629-94-8, 376-06-7, etc.	<ul style="list-style-type: none"> • 0.0000025% by weight (25 ppb) of C9-C14 PFCAs in total in molded items and mixtures • 0.000026% by weight (260 ppb) of C9-C14 PFCA-related substances in molded items and mixtures 	Water repellent, oil repellent, fire extinguishant, photoresist, coating materials, etc.

Appended table (1)-1: Excluded items prescribed in the RoHS Directive

No.	Substance	Legal No.	Applications excluded from prohibitions on inclusion and use
1	Cadmium/cadmium compound	8(b)	Cadmium and its compounds in electric contact
		13(b)-(II)	Cadmium in striking optical filter glass types, with the exception of applications corresponding to exemption 39* of the RoHS Directive Annex (Effective until January 21, 2021) *Exclusion number 39 (unused exemption in this provision): Cadmium in color converting II-IV LEDs (<10µg Cd per mm ² of light-emitting area) for use in illumination or display systems
		13 (b) -(III)	Cadmium in glazes used for reflectance standards
2	Lead/lead compounds	5(b)	Lead contained in fluorescent tube glass: 0.2 weight % or less
		6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0.35 % lead by weight and in batch hot dip galvanized steel components containing up to 0.2 % lead by weight
		6(b)	Lead as an alloying element in aluminum containing up to 0.4% lead by weight
		6(b)-I	Lead as an alloying element in aluminum containing up to 0.4 % lead by weight, provided it stems from lead-bearing aluminum scrap recycling
		6(b)-II	Lead as an alloying element in aluminum for machining purposes with a lead content up to 0.4 % by weight
		6(c)	Copper alloy containing up to 4% lead by weight
		7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)
		7(c)–I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound
		7 (c)–II	Lead in dielectric ceramic in capacitors for a rated voltage of 125V AC or 250V DC or higher
		13(a)	Lead in white glasses used for optical applications
		13(b)–(I)	Lead in ion colored optical filter glass types
		13(b)-(III)	Lead in glazes used for reflectance standards
		15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
3	Mercury	3(a)	Mercury in short lamps (500 mm or less)/cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding 3.5 mg
		3(b)	Mercury in medium-sized lamps (500 mm to 1500 mm)/cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding 5 mg
		3(c)	Mercury in long lamps (longer than 1500 mm)/cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding 13 mg

Appended Table (1)-2: Perfluorooctanoic acid (PFOA), and its salts and esters

Applicable substances	CAS No.
Perfluorooctanoic acid (PFOA)	335-67-1
Ammonium perfluorooctanoate (PFOA)	3825-26-1
Sodium salt of perfluorooctanoic acid	335-95-5
Potassium salt of perfluorooctanoic acid	2395-00-8
Silver salt of perfluorooctanoic acid	335-93-3
Perfluorooctanoic acid fluoride	335-66-0
Perfluorooctanoic acid methyl	376-27-2
Perfluorooctanoic acid ethyl	3108-24-5

Appended table (1)-3: Some aromatic amines formed from the breakdown of one or more azo groups

Applicable substances	CAS No.
4-aminoazobenzene	60-09-3
o-anisidine	90-04-0
2-Naphthylamine	91-59-8
3, 3'-dichlorobenzidine	91-94-1
4-aminobiphenyl	92-67-1
Benzidine	92-87-5
o-toluidine	95-53-4
4-chloro-2-methylaniline	95-69-2
2,4-toluenediamine	95-80-7
o-aminoazotoluene	97-56-3
5-nitro-o-toluidine	99-55-8
3,3'-dichloro-4,4'-diaminodiphenyl methane	101-14-4
4,4'-methylenedianiline	101-77-9
4,4'-diaminodiphenyl ether c	101-80-4
p-chloroaniline	106-47-8
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7
2-methoxy-5-methylaniline	120-71-8
2,4,5-trimethylaniline	137-17-7
4,4'-diaminodiphenyl sulfide	139-65-1
2,4-diaminoanisole	615-05-4
4,4'-diamino-3,3'-dimethyldiphenylmethane	838-88-0

Note: Substances subject to controls in these guidelines are “azo dyes and pigments producing certain aromatic amines.” This refers to azo compounds which produce amines listed in Appended Table (1)-3 from the reductive decomposition of the azo group.

Further, the 30 ppm threshold specified in the scope of application does not apply to azo dyes and pigments, but to amines corresponding to the Appended Table (1)-3.

Appended Table (1)-4: Polycyclic aromatic hydrocarbon (PAH)

Applicable substances	CAS No.
Benzo[a]pyrene (BaP)	50-32-8
Benzo[e]pyrene (BeP)	192-97-2
Benzo[a]anthracene (BaA)	56-55-3
Chrysene (CHR)	218-01-9
Benzo[b]fluoranthene (BbFA)	205-99-2
Benzo[j]fluoranthene (BjFA)	205-82-3
Benzo[k]fluoranthene (BkFA)	207-08-9
Dibenzo[a,h]anthracene (DBAhA)	53-70-3

(2) Controlled substances (chemical substances whose use, and amount of use, in parts and secondary materials must be understood)

No.	Substance	Threshold level	Application
1	Nickel and its compounds	When used in products intended to be in prolonged contact with the skin	Stainless steel, plating, applications involving prolonged contact with the skin
2	Polyvinylchloride (PVC)	0.1% in weight of homogeneous medium (1000 ppm)	Following applications, excluding applications of substances prohibited for use Resin material, wire coating material, insulating material, chemical-resistant properties, transparent sheathing material, coating material, ink, coating, resin binding agents used in adhesives (for binders)
3	Brominated flame retardants (excluding PBBs, PBDEs, and HBCDDs)	See the following scope of application	Flame retardant
			Scope of application: Satisfy either of the following items (1) Contain 1,000 ppm of the total amount of bromine in the plastic material (2) Contain 900 ppm of the total amount of bromine in the laminate of the laminate printed wiring board
4	Chlorinated flame retardants (CFR)	(1) 0.1% in weight (1000 ppm) of the total amount of chlorine in the plastic material	Flame retardant
		(1) 0.09% in weight (900 ppm) of the total amount of chlorine in the laminate printed wiring board	Flame retardant
5	Diisononyl phthalate (DINP) Diisodecyl phthalate (DIDP) Di-n-octyl phthalate (DNOP) Di-n-hexyl phthalate (DnHP)	0.1% in weight of homogeneous medium (1000 ppm)	Plasticizer, dye, pigment, coating, ink, adhesive
6	Formaldehyde	See the following scope of application	Insecticide, anti-corrosive in wood, etc., adhesive
			Scope of application: Satisfy either of the following items (1) Contain over 0.0075% in weight (75 ppm) in textile fiber
7	Perchlorate	0.006 ppm of product	Coin cell battery
8	4,4'-Isopropylidenediphenol (bisphenol A)	0.1% in weight (1000 ppm) of the product in its intended use or in its molded form	Resin raw materials, plasticizer
9	Radioactive substances	Intended use	Optical characteristics (thorium), measuring equipment, gages, detection equipment, etc.
10	Applicable to the Substances of Very High Concern (SVHC) group defined in the REACH Regulations.	0.1% in weight of homogeneous medium (1000 ppm)	Latest SVHC

(3) Prohibited substances for packaging use

(Applies to packaging materials used for products delivered to, and purchased by the SOSHIN ELECTRIC

Group)

No.	Substance	Threshold level	Application
1	Cadmium/cadmium compounds, Chromium(VI) compounds, Lead/lead compounds, Mercury/mercury compounds	0.01% in weight (100 ppm) in a homogeneous medium in its intended use, or as a total of the four substances listed on the left	Pigment, coating material, PVC stabilizer
2	Arsenic compound	When used as a wood preservative	Wood preservative
3	Halogen compounds and halogenated resins	Intended use	Flame retardant, adhesive
	<p>Examples of applicable chemical substances: Bromine compounds, chlorine compounds, polyvinylchloride (PVC), fluorinated resin, fluorine compounds, etc.</p> <p>Exemptions: Parts and materials used as packaging materials whose primary function is not for packaging A primary function that is not for packaging refers to applications other than use for protecting or wrapping the product (cases, cushioning, etc.).</p> <p>Example: Halogen compounds and fluorine additives used as adhesive in hologram labels and printing ink, etc. However, this exemption shall not apply to halogen compounds listed as prohibited substances in (1) Substances prohibited for use.</p>		
4	Controlled phthalates Bis(2-ethylhexyl) phthalate (DEHP) Dibutyl phthalate (DBP) Butyl benzyl phthalate (BBP) Diisobutyl phthalate (DIBP)	Intended use	Plasticizer
5	Cobalt chloride	When included as an indicator in desiccants	Humidity indicator card (HIC), moisture indicator in silica gel
6	Prohibited from February 22, 2022 Perfluoro carboxylic acids (PFCAs) and related substances containing 9 to 14 carbon atoms in chain CAS:375-95-1,335-76-2,2058-94-8, 307-55-1,72629-94-8, 376-06-7, etc.	<ul style="list-style-type: none"> • 0.000025% by weight (25 ppb) of C9-C14 PFCAs in total in molded items and mixtures • 0.000026% by weight (260 ppb) of C9-C14 PFCA-related substances in molded items and mixtures 	Water repellent, oil repellent, fire extinguishant, photoresist, coating materials, etc.