

Standard Manual for Management of Chemical Substances Contained in Parts and Materials

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Chapter1: Survey of Chemical Substances Contained in Parts and Materials

1. Purpose

Sakai Display Products Corporation (hereinafter referred to as "SDP") promotes green procurement from suppliers who are constructively engaged in environmental preservation activities to ensure user safety and to protect the environment at the time a product is finally disposed of.

Green procurement at SDP encompasses two aspects: an "Environmental Management Evaluation" that evaluates efforts aimed at protecting the environment by the supplier's organization as a whole, and a "Delivered Goods Evaluation" to assess the reduction in environmental impact of parts and materials purchased from the supplier (including materials, general components, finished and semi-finished products, and indirect materials). The objectives of this standard manual is not only to confirm legal compliance but also to contribute to reduction in environmental impact and to ensure safety of users by disclosing to our supplier's organizations the criteria and the survey methods for chemical substances contained in products mentioned in the "Delivered Goods Evaluation".

The Delivered Goods Evaluation consists of two processes: a Report on Chemical Substances Contained in the Product and a Content Survey.

Survey	Description	Remarks
Report on Chemical Substances Contained in the Product	A prescribed document attached to delivery specifications and submitted to SDP that indicates whether substances banned by SDP are contained in delivered goods.	Posted on the SDP Green Procurement website https://www.sdp.co.jp/en/suppliers/green.html
Parts Environment Survey Sheet (Content Survey)	A prescribed document to report chemical substances mass and result of the RoHS analysis report	Posted on the SDP Green Procurement website
(Content Survey)		https://www.sdp.co.jp/en/suppliers/green.html

2. Applicable Scope *1

This survey applies to all parts and materials purchased new by SDP. Specifically, it applies to the following items.

- (1) Parts, materials, units incorporated in the product
- (2) Indirect materials used in production and incorporated into the product
 - (solder, oil, grease, tape, marking ink [marker pens], etc.)
- (3) Finished products purchased for sale, optional equipment, supplies, etc.
- (4) Printed matter and accessories (user manuals, cables, remote control units, etc.) enclosed with the product
- (5) Packaging materials enclosing or holding the product

The following parts and materials may contain chemical substances that are subject to this survey. Check thoroughly whether they are present.

- · Lubricants, such as grease
- · Flame retardants in resin materials
- \cdot Polyvinyl chloride, flame retardants, and stabilizers in lead wire insulation
- \cdot Special metals (alloys) for lubrication of electrical contacts, etc.
- · Additives (plasticizers) in rubber for belts, rollers, bushings, tubing, etc.
- · Marking paints for color codes, pigments, etc.

For details, refer to the "Remarks" column under section "6. (1) List of Documents to Be Submitted".

^{*1} For indirect materials in (2) above and for packaging materials in (5) above, the applicable scope for the Report on Chemical Substances Contained in the Product differs from that of the Content Survey.

3. Definition of Terms

Chemical substance	An element or its compound that is formed naturally or can be obtained in any manufacturing process. (JIS Z 7201: 2012)		
Mixture	Mixture can be obtained by mixing two or more chemical substances. (JIS Z 7201: 2012) [Note] Examples of mixtures include paint/coating agent, ink, alloy ingot, solder, resin pellet, etc.		
Article	Refers to an item with a specific shape, appearance or design that is given during production which substantially determines the functions of the item in final use rather than its chemical composition. (JIS Z 7201: 2012) [Note] Examples of articles include paints, metal plates, gear wheels, integrated circuits, electrical products, transport machineries, etc.		
contain	Refers to a state where a chemical substance is contained in products, parts, materials, and ingredients used in them. Regardless of intentional addition or non-intentional addition (including impurities, residuals/adhesion/ contamination, etc. created in the process of manufacturing and transport), it is regarded as "contained" if the content rate of the chemical substance exceeds the SDP's reference value (threshold).		
Intentional addition	Refers to addition performed in the aim of providing a specific property to parts and materials. For example, hexavalent chromium for rust-proofing, brominated flame retardants to improve fire retardancy of plastic cabinets, etc. are applicable.		
Impurities	Refers to materials that are contained in natural materials and cannot technically be removed in the refining process, materials that are created in the synthesis reaction process and cannot technically be removed, and materials that are unintentionally contained in recycled materials.		
Homogeneous material	Refers to one material of uniform composition throughout or a material, consisting of a combination of materials, that cannot be disjointed or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes.		
Delivery Prohibition Date	Refers to the day on which delivery to SDP is prohibited •Immediately immediately prohibition of use •(Designated date: Day_ Month_ Year_) Delivery after the designated date is prohibited. •Under deliberation Under deliberation by related organizations		
RoHS RoHS Directive	Refers to EU RoHS Directives 2011/65/EU and the related amended Directive.		

4. Chemical Substance Management Categories

As shown in the table below, chemical substances contained in the parts and materials purchased by SDP are managed by classifying them into (1) Banned substances, (2) Substances banned depending on the application, (3) Candidate substances to be banned and (4) Managed substances.

Chemical substance category	Explanation	Remarks
(1)Banned substances	Substances that cannot be used for any purpose. If contained in a part or material, immediately discontinue and eliminate their use. In principle, SDP will not purchase parts and materials containing these substances.	 Substances whose inclusion in products is currently regulated or is expected to be regulated in the future under laws and regulations and on environmental labels in Japan or overseas.
(2)Substances banned depending on the application	Substances regarded as banned by SDP depending on the application (excluded applications). In excluded applications,these substances shall be treated as Managed substances.	•Substances that SDP regulates on itsown initiative in advance of global trends because it is widely known that their environmental impact is high and alternative substances exist.
(3)Candidate substances to be banned	Substances that are candidates for ″Banned substances″ in (1) or (2) above. If it is contained,please promote substitution.	 Sunbstances that are expected to be banned in the near future under domestic and foreign laws and regulations. Since the threshold value, prohibited date, regulated use (excluded use), etc. have not been determined in the laws and regulations, it cannot be specified as SDP's "Candidate substances to be banned" at this time, but in the future based on the trends of laws and regulations, etc. Specify for SDP's "Candidate substances to be banned". Depending on the timing when laws and regulations are finalized, it may not be possible to set a grace period from the designation as SDP's "Banned substances" to the delivery prohibition date, so if it is contained, please proceed with the substitution as soon as possible.
(4)Managed substances	Substances for which it is necessary to ascertain whether the specified substance is present, the amount contained, and so on.	 Substances for which disclosure of information on their usage status in products is required, or is expected to be required in the future, under laws and regulations and on environmental labels in Japan or overseas. Substances for which customers have requested, or for which there is a possibility of being requested, that their usage status information in products be disclosed. All SDP-specific survey-targeted chemical substances that do not fall under the category of "SDP-banned substances "shall be treated as Managed substances.

5. Classification of Items Procured

At SDP, parts and materials used in products are classified from the standpoint of biosafety into "specified items" (A, B, C) and "general items", as indicated in the table below.

Item		Classification/Definition	Examples of Procured Items	
	Specified Item A (Items with large social responsibility)	 SDP-developed procured item Procured item developed by SDP, or that uses chemicals specified by SDP Procured item bearing the SDP brand 	Procured items for copiers (toner,developer, ink, etc.),ink ribbon, ink roll, air purifier filter, vacuum cleaner bag, SDP custom- order product (procured items with SDP- designated model number), etc.	
Specified		 Procured item in powder, liquid, or gas form SDP-developed procured item to which users and other organisms are directly exposed to 	SDP-designated cleaning agent (for air conditioners, washing machines, etc.), base material for composters, etc.	
Items	Specified Item B (Items that come into contact with food or eating	 Procured item that has the possibility of coming into direct contact with food or utensils during cooking or storage 	Parts for the internal compartments of refrigerators and microwave ovens, etc.	
	utensils, or that use special chemicals)	 Procured item that has been given functions such as antibacterial, antimold, and insect repellency via chemicals 	External parts such as cabinets with antibacterial, antimold, or insect repellent functions	
Specified Item C (Items with which users come into contact for a long period of time)		Procured item that can be expected to enter or attach to the human body; or to which bodily parts other than fingers and hands constantly come into contact during product use	Ear pads on headphones, blood pressure cuff, electric carpet, etc.	
General Items		Procured item other than specified item	Procured items other than the above	

6. Documents to Be Submitted

(1) List of Documents to Be Submitted

Document	Format	Method of Submission	Chemical Substances Targeted in Survey ^{*2}	Remarks
Report on Chemical Substances Contained in the Product	Report on Chemical Substances Contained in the Product ^{*3}	Submitted by attaching to specifications for newly adopted parts and materials	SDP-banned substances •Banned substances •Substances banned depending on the application •Candidate substances to be banned	 Range of applicable packaging materials: Also covers packaging materials at the time of parts and materials delivery. Also report chemical substances contained in packaging materials under the same criteria. However, packaging materials that will clearly be disposed of at SDP bases *4 and for which there is no risk of migration or contamination by targeted substances from the packaging materials are not subject to the survey.
Content Survey	Parts environment survey sheet	Submit at the same time as the specifications	Enter chemical substance information and RoHS information for each homogeneous material	 Range of applicable packaging materials: Packaging materials are not subject to the survey at the time of parts or materials delivery. However, Packaging material used when delivering parts to user of SDP,is targert. Range of applicable indirect materials: Indirect materials and ancillary members used in the manufacturing process and that do not remain in products/parts are excluded from the survey, (e.g., solvents, detergents, foaming agents, etc.)
Analysis Data of RoHS Target Substances	Actual measurement data (May be substituted by other material, for which RoHS compliance can be confirmed ^{*5})	Submitted by	The ten substances regulated under RoHS (lead, mercury, cadmium, hexavalent chromium, PBB, PBDE, DEHP, BBP, DBP, DIBP)	-
Composition Table, SDS ^{*6}	Industry standards	attaching to specifications for newly adopted	-	-
Food Sanitation Act Test Data			-	-
Safety Evaluation Data	trom analysis		Refer to "Criteria for Safety Evaluation Data" (p7) in the"(2) Documents to Be Submitted for Each Item" section.	_

The table below specifies the documents to be submitted and the format for submission.

*2 Chemical substances subject to the survey may be changed or added depending on trends in regulations and customer requests.

*3 The Report on Chemical Substances Contained in the Product will be posted on the SDP Green Procurement website.

(<u>https://www.sdp.co.jp/en/suppliers/green.html</u>)

*4 "Bases" refers to SDP plants and service bases in Japan and overseas.

*5 Refer to the SDP Green Procurement website

(https://www.sdp.co.jp/en/suppliers/green.html)

*6 SDS: Safety Data Sheet

(2) Documents to Be Submitted for Each Item

Information to be submitted for each category of items that SDP procures is given in the table below. Beyond this table, we may ask you to provide additional information to comply with laws and regulations, and/or industry standards and norms.

		(●	= Required; 🔺 =		ole; — = Not requ	uired)
		Specified Items			Comenci	
		Specified Item A	Specified Item B−1	Specified Item B−2	Specified Item C	General Items
	Chemical Substances in the Product	•	•	•	•	•
Content Sı	irvey	•	•	•	•	•
Analysis Da Substances	ata of RoHS Target s	•	•	•	•	•
EU eco lab statement	el conformance	_	_	_	_	▲ *14
Compositio	n Table, SDS ^{*7}	•	-	● ^{*8}	_	▲ * ¹⁴
Food Sanit	ation Act Test Data	_	•	-	_	_
Safety	1) Acute toxicity (oral intake)	•	_	-	•	-
	2) Skin irritancy ^{*10}	•	_	_	•	-
	3) Eye/mucous membrane irritancy ^{*11}	•	_	_	•	_
Evaluation Data ^{*9}	4) Mutagenicity test (Ames test)	•* ¹²	_	_	● ^{*13}	-
	5) Mutagenicity test, chromosomal aberration test	•	_	_	•	-
	6) Mutagenicity test, micronucleus test	•	_	-	•	-

(\bullet = Required; \blacktriangle = Submit if possible; - = Not required)

Criteria for Safety Evaluation Data

Test Item	Hazard Identification Criteria	(Reference) Test Method (OECD test no.)* ¹⁵
1) Acute toxicity (oral intake)	Oral: Lethal dose 50 % (LD50>2,000 mg/kg (Rat))	423,425
2) Skin irritancy	Primary irritation index (PII \geq 2)	404
3) Eye/mucous membrane irritancy	Present	405
4) Mutagenicity test (Ames test)	Positive	471
5) Mutagenicity test, chromosomal aberration test	Positive	473
6) Mutagenicity test, micronucleus test	Positive	474

*7 Submit when there is the possibility of exposure

- $\ast 8\,$ Submit SDS for antibacterial and antimold agents
- $\ast 9$ Submit when there is the possibility of exposure
- *10 Not necessary if no direct exposure to skin, eyes, or mucosa.
- *11 Not necessary if no direct exposure to skin, eyes, or mucosa.
- *12 Also submit as much other genotoxicity data as possible in addition to tests in 5) and 6).
- *13 Also submit as much other genotoxicity data as possible in addition to tests in 5) and 6).
- *14 "EU eco label conformance statement" requires a complementary material, please submit the SDS (former name MSDS).

* Target parts: plastic parts, cables, wiring, power supply units, PCB, etc.

Not target parts: Electronic parts (Example : IC, PCB mounted parts, Connectors, etc.), Part of no resin, etc.

*15 OECD Guidelines for the Testing of Chemicals located at:

http://www.oecd.org/chemicalsafety/testing/oecdguidelinesforthetestingofchemicals.htm

Chapter2: Chemical Substances Subject to the Survey, Criteria

1. List of Chemical Substances Subject to the Survey

Chemical substances contained in parts and materials purchased by the SDP (hereinafter referred to as "SDP") are managed by classifying them into four categories: (1) Banned substances, (2) Substances banned depending on the application, (3) Candidate substances to be banned, and (4) Managed substances.

(1) Banned substances

The substances shown in Table 2-1-1 are banned at SDP and cannot be used for any purpose. If contained in a part or material, their use must be immediately discontinued. In principle, SDP will not purchase parts and materials containing these banned substances.

Category	No.	Substance (Group)	Criteria (Value)
	1 Hexavalent chromium compounds		
RoHS-related chemical Substances	2	Polybrominated biphenyls (PBBs)	
Gubstanees	3	Polybrominated diphenylethers (PBDEs)	
	4	Tributyl tin oxide (TBTO)	
	5	Tri-substituted organostannic compounds	
	6	Beryllium oxide (BeO)	
	7	Polychlorinated biphenyls (PCBs) and specific substitutes	
	8	Polychlorinated terphenyls (PCTs)	
	9	Polychlorinated naphthalenes (having 1 to 8 chlorine atoms)	
	10	Asbestos	
	11	2-(2H-1,2,3-benzotriazol-2-yl)-4, 6-di-tert-butylphenol	
	12	Dimethyl fumarate	
	13	Diarsenic pentoxide	
	14	Hexabromocyclododecane (HBCDD) and all major diastereoisomers	
	15	Short-chain chlorinated paraffins(SCCPs) (C10-C13)	
	16	Cobalt dichloride (CoCl2)	See
	17	Aluminosilicate, refractory ceramic fibers	Table 2-2-1
Other	18	Zirconia aluminosilicate, refractory ceramic fibers	
	19	Dibutyltin (DBT) compounds	
	20	Pentachlorothiophenol (PCTP)	
	21	Perfluorocarboxylic acids containing 9 to 14 carbon atoms in the chain (C9–C14 PFCAs), their salts and C9–C14 PFCA-related substances	
	22	Perfluorohexane-1-sulphonic acid (PFHxS), its salts and PFHxS- related substances	
	23	Ozone-depleting substances	
	24	Dehlorane plus and its sys-isomer and anti-isomer	
	25	MOAH(Aromatic hydrocarbons of material oil comprising from 1 to 7 aromatic rings)	
	26	MOAH(Aromatic hydrocarbons of material oil comprising from 3 to 7 aromatic rings)	
	27	MOAH(Aromatic hydrocarbons of material oil comprising from 16 to 35 aromatic rings)	

Table 2-1-1 : Banned substances

(2) Substances Banned Depending on the Application

The substances shown in Table 2-1-2 are treated by SDP as substances banned depending on the application. They are permitted for use only in the exempted applications listed in the table. In exempted applications, these substances are treated as Managed substances.

Category	No.	Substance (Group)	Exempted Applications
	1	Cadmium and its compounds	
	2	Lead and its compounds	
RoHS-related chemical	3	Mercury and its compounds	See
Substances	4	Bis(2–ethylhexyl)phthalate (DEHP), dibutylphthalate (DBP), butylbenzylphthalate (BBP), Diisobutylphthalate (DIBP)	Table 2-2-2-1
	5	Nickel and its compounds	
	6	Dioctyltin (DOT) compounds	
	7	Beryllium and its compounds (exceptberyllium oxide)	
	8	Perfluorooctane sulfonate (PFOS)	
	9	Fluorinated greenhouse gases (HFC, PFC, SF6)	
	10	Polyvinyl chloride (PVC) and its copolymer * ¹⁶	
	11	Azo colorants and azo dyesthat form certain aromatic amines	
	12	Radioactive substances	
	13	Formaldehyde	
	14	Phthalate esters other than phthalates DIBP, DEHP, DBP, and BBP (listed No.4 above)	
	15	Diarsenic trioxide	
	16	Arsenic and its compounds (except diarsenic trioxide and diarsenic pentoxide)	
	17	Boric acid	
Other	18	Disodium tetraboarate, anhydrous, Tetraboron disodium heptaoxide, hydrate	See Table 2−2−2−2
	19	Perfluorooctanoic acid (PFOA) and its salts and PFOA-related substances	
	20	Halogenated compound (Halogenated flame retardant etc.)	
	21	Chlorinated flame retardants	
	22	Tris(2-chloroethyl) phosphate (TCEP)	
	23	Tris(2-chloro-1-methylethyl) phosphate (TCPP)	
	24	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	
	25	Polycyclic aromatic hydrocarbons (PAHs) *17	
	26	Red phosphorus ^{*18}	
	27	Isopropylphenyl phosphate (PIP(3:1))	1
	28	Hexachlorobutadiene (HCBD)	1
	29	2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP)	1
	30	4,4'−isopropylidenediphenol (Bisphenol A)	1
	31	4,4'−sulfonyldiphenol (Bisphenol S)	1
	32	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	

Table 2-1-2 : Substances Banned Depending on the Application

^{*16} Please report the content status in the "Contained Chemical Substance Report" as a substance subject to SDP's own investigation.

^{*17} Applies to all the following CAS numbers: 50-32-8, 192-97-2, 56-55-3, 218-01-9, 205-99-2, 205-82-3, 207-08-9, and 53-70-3.

^{*18} Please report the content status in the "Contained Chemical Substance Report" as a substance subject to SDP's own investigation.

(3) Candidate substances to be banned

The substances shown in Table 2–1–3 are SDP's "Candidate substances to be banned". Substances that are candidates for the above (1) Banned substances or (2) Substances Banned Depending on the Application. Based on trends such as laws and regulations, SDP will ban its use in the future. If it is contained, please promote substitution.

No.	Substance (Group)	Criteria (Value)			
1	1,2-Bis(2,3,4,5,6-pentabromophenyl) ethane (DBDPE)				
2	Tetrabromobisphenol A (TBBPA)				
3	Medium Chain Chlorinated paraffins (MCCPs, C14-17, chlorination levels at or exceeding 45% chlorine by weight)				
4	Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15–C21 PFCAs), their salts and C15–C21 PFCA–related substances				
5	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)				
6	Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances				
7	Bisphenols (excluding Bisphenol A and Bisphenol S)				

Table 2-1-3 : Candidate substances to be banned

(4) Managed substances

Managed substances cover all chemical substances (groups) that do not fall into the category of SDP-banned substances which fit the categories listed in Table 2–1–4. For Managed substances, you must ascertain whether the specified substance is present, the amount contained, and so on.

Table 2-1-4 : Management Criteria

Covered Laws & Regulations, Industrial Criteria
Japan Chemical Substances Control Act Class I specified chemical substance
USA Toxic Substances Control Act (TSCA): Section 6; prohibited or restricted substances
EU ELV directive 2011/37/EU
EU RoHS directive 2011/65/EU, Annex II
EU POPs regulation(EC) No.850/2004, Annex I
EU REACH regulation (EC) No.1907/2006 Candidate List of SVHC for Authorisation and Annex XIV
EU REACH regulation (EC) No.1907/2006, Annex XVII
EU MDR (Medical Device Regulation)
Global Automotive Declarable Substance List (GADSL)
IEC62474DB Desclarable substance groups and declarable substances

 ${\sf O}$ Criteria for Providing Composition Information for Managed substances

The "Standards for Transmitting Component Information" for controlled substances shown in Table 2–1–5 shall be as described in the "Report Target" column.

The "Standards for Transmitting Component Information" for other controlled substances comply with the laws and regulations in Table 2-1-4.

Table 2-1-5 : Managed substances

Substance (Group)	Reporting Threshold
Bromine-based flame retardants (PBB, PBDE,or except HBCDD)	 Total amount of bromine contained in plastic material is 1,000 ppm or more. Total amount of bromine contained in multilayer printed circuit boards is 900 ppm or more. <u>Has been intentionally added.</u>

2. List of Criteria for Banned Substances

(1) Banned substances

CAT	No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
	1	1 Hexavalent chromium	 Pigments and dyesused in plastics (including rubber) Pigments, paints, inks Rust-preventive plating treatments Batteries 	Content is 1,000 ppm or less.	Immediately
RoHS- related chemical		compounds	 (5)All uses including catalysts (6)Leather products/components that come into contact with the human skin 	Less than 3 ppm per total dry weight of leather	
Substances			⑦Packaging materials, packaging components	See Table 2-2-4	
	2	Polybrominated biphenyls (PBBs)	①All uses including flame retardants for plastics	Content is 1,000 ppm or less.	Immediately
	0	Polybrominated diphenylethers (PBDEs)	①All uses including flame retardants for plastics	Content is 1,000 ppm or less.	Immediately
	3		②In the case of parts/materials used for products other than regulated	Content is less than 500 ppm in the Mixture or Article	
	4	Tributyl tin oxide (TBTO)	①All uses including paints, inks, preservatives, and mold inhibitors	Content is 1,000 ppm or less. Not intentionally added.	Immediately
	5	Tri-substituted organostannic compounds	①All uses including paints, inks, preservatives, and mold inhibitors	Content is 1,000 ppm or less. Not intentionally added.	Immediately
	6	Beryllium oxide	①All uses	Content is 1,000 ppm or less. Not intentionally added.	Immediately
	7	Polychlorinated biphenyls (PCBs) and specific substitutes	①All uses including insulating oils and lubricating oils	Not intentionally added.	Immediately
Other	8	Polychlorinated terphenyls (PCTs)	①All uses	Content is 50 ppm or less. Not intentionally added.	Immediately
	9	Polychlorinated naphthalenes (having 1 to 8 chlorine atoms)	①All uses including lubricating oils and paints	Not intentionally added.	Immediately
	10	Asbestos	①All uses including insulation materials and filling agents	Not intentionally added.	Immediately
	11	2–(2H–1,2,3– benzotriazol–2–yl)–4,6– di–tert–butylphenol	①All uses	Not intentionally added.	Immediately
	12	Dimethyl fumarate	①All uses	Content is 0.1 ppm or less. Not intentionally added.	Immediately

CAT	No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
	13	Diarsenic pentoxide	①All uses	Content is 1,000 ppm or less. Not intentionally added.	Immediately
	14	Hexabromocyclododecane (HBCDD) and all major diastereoisomers	①All uses	Content is 100 ppm or less. Not intentionally added.	Immediately
	15	Short-chain chlorinated paraffins (SCCPs) (C10-C13)	①All uses including pigments, paints, inks, lubricants, and plasticizers	Content is less than 1,000 ppm and Not intentionally added	Immediately
	16	Cobalt dichloride (CoCl2)	①All uses	Content is 1,000 ppm or less. Not intentionally added.	Immediately
	17	Aluminosilicate, refractory ceramic fibers	①All uses	Not intentionally added.	Immediately
	18	Zirconia aluminosilicate, refractory ceramic fibers	①All uses	Not intentionally added.	Immediately
	19	Dibutyltin (DBT) compounds	①All uses	1,000 ppm or less as elemental tin in material.	Immediately
	20	Pentachlorothiophenol (PCTP)	①All uses	Content is 1 wt% or less.	Immediately
Other	21	Perfluorocarboxylic acids containing 9 to 14 carbon atoms in the chain (C9–C14 PFCAs), their salts and C9–C14 PFCA-related substances	①All uses	The following (1) and (2) are to be satisfied in the Mixture or Article. (1)The sum of C9-C14 PFCAs and their salts : Content is less than 25ppb (0.025ppm). (2)The sum of C9-C14 PFCA-related substances : Content is less than 260 ppb (0.26ppm).	Immediately
	22	Perfluorohexane–1– sulphonic acid (PFHxS), its salts and PFHxS–related substances	①All uses	The following (1) and (2) are to be satisfied in the Mixture or Article. (1)The sum of PFHxS and their salts : Content is 0.0000025% (25ppb) or less. (2)The sum of PFHxS- related substances : Content is 0.0001% (1,000ppb) or less.	1 Jan. 2023
	23	Ozone-depleting substances	①All uses	Not intentionally added.	Immediately
	24	Dehlorane plus and its sys–isomer and anti– isomer	①All uses	Not intentionally added.	Immediately

CAT	No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
	25	MOAH(Aromatic hydrocarbons of material oil comprising from 1 to 7 aromatic rings)	①Ink for all packaging	Content is 1 % or less.	Immediately
	25		Ink for all packaging and printing	Content is 0.1 % or less.	1 Jul. 2024
Other	26	MOAH(Aromatic hydrocarbons of material oil comprising from 3 to 7 aromatic rings)	①Ink for all packaging and printing	Content is 1 ppm or less.	1 Jul. 2024
	27	MOAH(Aromatic hydrocarbons of material oil comprising from 16 to 35 aromatic rings)	①Ink for all packaging and printing	Content is 0.1 % or less.	1 Jul. 2024

(2) Substances Banned Depending on the Application

As for the chemical substances covered under EU RoHS, the delivery prohibition date has been set in accordance with the following policy:

- <The SDP's policy of delivery dates to SDP and EU RoHS exemption's due date. >
 - 1) In principle, SDP set up delivery prohibition date to SDP as "six month" before the due date of EU RoHS exemption.
 - Example) If the deadline of RoHS Exemption is "21 July 2021," the delivery prohibition date to SDP is "21 Jan. 2021".
 - 2) In addition, if the deadline of RoHS Exemption is changed, in principle, the delivery prohibition date to SDP will be six months before the changed deadline.
 - 3) It is based on information on the exemption deadline of the EU RoHS Directive at the time of issuance of this manual.

表2-2-2-1 : Exempted Applications for Substances Banned Depending on the Application and Their Criteria
(Reference Values) [RoHS-related chemical Substances]

No.	(Group)		Applications	RoHS Exemption ^{*19}	Criteria (Value)	Date of Abolition
1	Cadm	ium and its o	compounds			
			①Stabilizers, pigments, and dyes used in plastics (including rubber)			
			②Pigments, paints, inks			
			③Surface treatments (plating, etc.), coatings		Content is 100ppm	
		Banned	④Small fluorescent lamps, straight-tube fluorescent lamps		or less.	Immediately
			⑤All applications except those in the Declarable category			
			⑥Packaging materials, packaging components	-	See Table 2-2-4	
			Used for electrical contacts			
			(a)Circuit breakers			
			(b)Thermal sensing controls			
			(c)Thermal motor protectors (excluding hermetic thermal motor protectors)			
			(d)AC switches rated at 6A and more at 250V AC and more, or 12A and more at 125V AC and more″	8(b)-I	_	(Under deliberation
			(e)DC switches rated at 20A and more at 18V DC and more″			for exemption renewal in
		Declarable	(f)Switches for use at voltage supply frequency >= 200 Hz			EU) ^{*20}
			②Used in striking optical filter glass types, excluding applications falling under point 39 of EU RoHS directive annex III	13(b)-(II)	_	
			③Used in white glass used for an optical purpose	13(b)-(III)	_	
			Using exemptions listed in EU RoHS directive other than above and having permission from adoption decision.	-	-	*21
			⑤Batteries	-	In compliance with EU battery directive.	-

 $\ast 19$ Nos. of the exempted applications in the RoHS Directive Annex III are shown.

*20 An application for extension of exemption was accepted in the EU, and it is under deliberation at the time of issuance of this manual. This exemption is valid during deliberation. When the deadline is decided, delivery prohibition date to SDP will be six months before the deadline.

*21 In principle, SDP set up delivery prohibition date to SDP as "six month" before the due date of EU RoHS exemption.

No.	Substance (Group)	Applications	RoHS Exemption ^{*19}	Criteria (Value)	Date of Abolition
2	Lead and its com	pounds			
		 Stabilizers, pigments, and dyes used in plastics (including rubber) (AC adapters, power cords, connection cables, etc.) Pigments, paints, inks Balancer weights Lead solder (solder for component mounting, 			
	Banned	terminal plating, etc.) (5)Consumer products designed or intended primarily for children age 12 and younger and used at 0.01 wt% or more in exterior parts	-	Contained at less than below: ①In resins : 300 ppm ②Other : 1,000 ppm	Immediately
		6 Parts and materials for toy applications, 0.009% or more used per unit in surface coatings such as paint			
		⑦All applications except those in the Declarable category			
		8Packaging materials, packaging components	-	See Table 2-2-4	
		①Used in high-melting point solder (lead-based alloys containing 85 % by weight or more lead)	7(a)	-	
		②Used in electrical and electronic components in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	7(c)-I	-	
		③Used less than 0.2 % by weight in glass of fluorescent tubes	5(b)	-	-
		④Contained as an alloying element			-
		(a)Used less than 0.35 % by in weightsteel alloy for machining purposes	6(a)-I	-	
		(b)Used less than 0.4 % by weight in aluminium alloy for machining purposes	6(a)-II	-	(Under deliberation
	Declarable	(c)Used less than 4 % by weight in copper alloy	6(c)	-	for exemption renewal in
		(5)Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies			EU) ^{*20}
		(a)A semiconductor technology node of 90 nm or larger	15(a)	-	
		(b)A single die of 300 mm ² or larger in any semiconductor technology node			
		(c)Stacked die packages with die of 300 mm ² or			
		larger, or silicon interposers of 300 mm ² or larger			1
		6Used in white glass used for an optical purpose	13(a)	-	4
		(7)Used in ion coloured optical filter glass types	13(b)-I	-	-
		⑧Used in glazes used for reflectance standards	13(b)-III	-	

*19 Nos. of the exempted applications in the RoHS Directive Annex III are shown.

*20 An application for extension of exemption was accepted in the EU, and it is under deliberation at the time of issuance of this manual. This exemption is valid during deliberation. When the deadline is decided, delivery prohibition date to SDP will be six months before the deadline.

No.		lbstance Group)	Applications	RoHS Exemption ^{*19}	Criteria (Value)	Date of Abolition
2	Lead	and its comp	pounds			
			(9) Used in dielectric ceramic used in a capacitor with rated voltage of 125V AC or 250V DC or larger	7(c)–II	-	(Under deliberation for exemption renewal in EU) ^{*20}
		Declarable	${ m I}{ m I}{ m U}$ Sing exemptions listed in EU RoHS directive other than ${ m (1)}$ to ${ m (9)}$ above and having permission from adoption decision	-	-	*21
			①Batteries	-	In compliance with EU battery directive	_
3	Mercu	ary and its c	ompounds			
			①Stabilizers, pigments, and dyes used in plastics (including rubber)			
			②Pigments, paints, inks		Content is 1,000 ppm	
		Banned	③Mercury batteries	_	or less.	Immediately
			④Relays, switches, and sensors using mercury			
			⑤All applications except those in the Declarable category			
			6Packaging materials, packaging components		See Table 2-2-4	
			①Metal halide lamps (MH)	4(e)	-	24 Aug. 2026
			②Other discharge lamps for special purposes not specifically mentioned above	4(f)-I	-	24 Aug. 2024
		Deslaushla	③Mercury in high pressure mercury vapour lamps used in projectors where an output≧2,000 lumen ANSI is required	4(f)-II	-	24Aug. 2026
		Declarable	Mercury in lamps emitting light in the ultraviolet spectrum	4(f)- IV	-	2020
			⑤Exempted applications specified under the EU RoHS Directive other than ① to ④ above, and permission obtained from the adopting department	-	-	_
			©Batteries	-	In compliance with EU battery directive	
	Bis(2-ethylhexyl)phthalate phthalate (DEHP), dibutyl phthalate (DBP), butylbenzylphthalate (BBP), Diisobutylphthalate (DIBP)					
			①Used in the case of parts/materials used in the product that is ″Not subject to regulated EU RoHS Directive″ or ″Children's toy or child care article″.		①Total content of 4 substances is 1,000 ppm or less.	
		Banned	②All applications other than above ① (Used in the case of parts/materials used in the product that is both "regulated EU RoHS Directive" and "other than Children's toy or child care article".)	_	②Content of DEHP, DBP, BBP and DIBP is 1,000 ppm or less respectively.	Immediately
		Declarable	①All applications except those in the Banned categoly	-		_

 $\ast 19$ Nos. of the exempted applications in the RoHS Directive Annex III are shown.

*20 An application for extension of exemption was accepted in the EU, and it is under deliberation at the time of issuance of this manual. This exemption is valid during deliberation. When the deadline is decided, delivery prohibition date to SDP will be six months before the deadline.

*21 In principle, SDP set up delivery prohibition date to SDP as "six month" before the due date of EU RoHS exemption.

No.		ubstance Group)	Applications	Criteria (Value)	Date of Abolition
5	Nicke	I and its com	npounds		
		Banned	①Applications with prolonged contact with human skin	Not intentionally added.	Immediately
		Declarable	①All applications except those in the Banned category	-	-
6	Dioct	yltin (DOT) c	compounds		
		Banned	①Two-component room temperature vulcanization molding kits (RTV-2 molding kits)	1,000 ppm or less as elemental tin in material.	Immediately
		Declarable	①All applications except those in the Banned category	-	-
7	Beryl	ium and its o	compounds (except beryllium oxide)		
		Banned	①All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	①Alloys, ceramics, glass, and semiconductors	-	-
8	Perflu	iorooctane s	ulfonate (PFOS)	-	
		Banned	①All applications except those in the Declarable category	Not intentionally added and -10 ppm or less in substances/mixture. -1,000 ppm or less in sub- product/article etc. except substance/mixture. -1 μ g/m ² or less in coating agent.	Immediately
		Declarable	①Mist suppressants for non-decorative hard chromium (VI) plating and wetting agents for use in electroplating systems	-	-
9	Fluori	nated green	nouse gases (HFC, PFC, SF6)	-	
		Banned	①All applications except those in the Declarable category	Not intentionally added.	Immediately
		Declarable	HFC used for the refrigerant and/or the thermal insulator	-	-
10	Polyv	inyl chloride	(PVC) and its copolymer		
		Banned	①Packaging materials/parts (for packaging SDP products)	Not intentionally added.	Immediately
		Declarable	①All applications except those in the Banned category	-	-

表2-2-2-2: Exempted Applications for Substances Banned Depending on the Application and Their Criteria (Reference Values) [Other]

No.		tance oup)	Applications	Criteria (Value)	Date of Abolition
11	Azo colo	orants and	azo dyesthat form certain aromatic amines		-
	1	Banned	 Used in a part of a product[*] in direct human body contact manufactured based on the premise that the product will be in continuous contact with the human body and which may produce amines when decomposed *Products such as electric carpets, electric blankets, earphones, headphones, straps, and the like. 	May produce carcinogenic amines exceeding 30 ppm due to decomposition.	Immediately
	De	eclarable	①All applications except those in the Banned category (used for parts not in continuous contact with the human body)	_	_
12	Radioact	tive subst	ances	•	
	1	Banned	①All applications other than those in the Declarable category	Not intentionally added.	Immediately
	De	eclarable	 Thorium used in the magnetron of a microwave oven Krypton 85 used in the electric bulb of an LCD projector 	_	_
13	Formalde	ehyde		•	
		Banned	①Wooden parts	①Atmospheric concentration of 0.1 ppm or less in an airtight test chamber having a volume of at least 10 m ³ (chamber method)	
	1		 ②Used in a fabric part of a product[*] in direct human body contact manufactured based on the premise that the product will be in continuous contact with the human body *Products such as electric carpets, electric blankets, earphones, headphones, straps, and the like. 	②According to the Japanese Act on Control of Household Products Containing Harmful Substances (75 ppm or less)	Immediately
	De	eclarable	All applications except those in the Banned category	-	-
14	Phthalat	e esters d	other than phthalates DIBP, DEHP, DBP, and BBP (No.	4 above)	
	1	Banned	①Diisononyl Phthalate: DINP, Diisodecyl phthalate: DIDP or Di-n-octylphthalate: DNOP is used in parts/materials that is used in products that are children's toy or child care article that can be placed in a child's mouth.	Total content of three substances 1,000 ppm or less	Immediately
	De	eclarable	①All applications except those in the Banned category	_	-
15	Diarsenie	c trioxide		•	•
	I	Banned	①All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	Immediately
	De	eclarable	Glass of the lamp of an LCD projector	_	-

No.		ıbstance Group)	Applications	Criteria (Value)	Date of Abolition
16	Arsen	ic and its co	ompounds (except diarsenic trioxide and diarsenic pent	oxide)	
		Banned	①All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	 ①Exempted components* *Semiconductors, photosensitizers, magnet filters, copper foil, and batteries. 	-	-
17	Boric	acid			
		Banned	①All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	③Adhesives	-	_
18	Disodi	ium tetrabor	ate, anhydrous; Tetraboron disodium heptaoxide, hydra	te	1
		Banned	①All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	 ①Polarizers (made of PVA) ②Glass ③Adhesives ④Fiber 	-	-
19	Perfl	uorooctanoi	c acid (PFOA) and its salts and esters	-	
		Banned	①All applications except those in the Declarable category	 The following (1) and (2) are to be satisfied in the Mixture or Article.*²² (1) PFOA (including its salt): Content is less than 25 ppb. (2) Combination of one or multiple PFOA-related substances: Total content is less than 1,000 ppb (1 ppm). 	Immediately
		Declarable	 Photo-lithography processes for semiconductors or in etching processes for compound semiconductors. Photo coating used in printing plates, film, and documents. Exemptions listed in EU PoPs regulation Annex I Part A other than above and having permission from adoption decision. 	_	_
20	Chlori	nated flame	retardants	1	1
•		Banned	①All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	①Difficult to substitute, and permission obtained from the adoption decision department within SDP.	_	_

 \ast 22 Total of the substances having these CAS numbers:

335-67-1, 3825-26-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0, 376-27-2, 3108-24-5

No.		ıbstance Group)	Applications	Criteria (Value)	Date of Abolition
21	Halog	enated comp	oound (Halogenated flame retardant etc.)		
		Banned	①Used in enclosure and stand of electronic displays including televisions, monitors and digital signage displays with ascreen area over 100 cm ² .	 The following (1) and (2) are to be satisfied. (1) Halogenated flame retardants are Not intentionally addes. (2) Total content of the halogen elements in the homogeneous material is 0.1 wt% or less. 	Immediately
		Declarable	 ①All applications except those in the Banned category ②Although it falls under the "prohibited use category", it is used in products with limited destinations and having permission from adoption decision. 	_	-
22	Tris (2-chloroethy	/l) phosphate (TCEP)		
		Banned	 Products for children age 12 and younger, and home furnishings covered with fiber, etc. All applications except those in the Declarable category 	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	 Used in motor vehicles or replacement parts or replacement equipment for motor vehicles. Used in commercial or residential building insulation or wiring that otherwise complies with the Construction Codes Supplement, set forth in Title 12 of the District of Columbia Municipal Regulations. Used in desktop and laptop computers, audio and video equipment, calculators, wireless telephones, game consoles, handheld devices incorporating a screen that are used to access interactive software and their associated peripherals, and cables, adaptors, and other similar connecting devices; or. Used in storage media, such as compact discs, for interactive software, such as computer games. 	_	_
23	Tris (2-chloro-1-i	methylethyl) phosphate (TCPP)	1	
		Banned	Products for children age 12 and younger, and home furnishings covered with fiber, etc.	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	①All applications except those in the Banned category	_	-

No.	lo. Substance (Group)		Applications	Criteria (Value)	Date of Abolition
24	Tris (1,3-dichloro-	-2-propyl) phosphate (TDCPP)	•	
		Banned	 ①Products for children age 12 and younger, and home furnishings covered with fiber, etc. ②All applications except those in the Declarable category 	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	 Used in motor vehicles or replacement parts or replacement equipment for motor vehicles. Used in commercial or residential building insulation or wiring that otherwise complies with the Construction Codes Supplement, set forth in Title 12 of the District of Columbia Municipal Regulations. Used in desktop and laptop computers, audio and video equipment, calculators, wireless telephones, game consoles, handheld devices incorporating a screen that are used to access interactive software and their associated peripherals, and cables, adaptors, and other similar connecting devices; or. Used in storage media, such as compact discs, for interactive software, such as computer games. 	_	_
25	Polvc	vclic aromat	ic hydrocarbons (PAHs) ^{*23}		
		Banned	①Rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity.	Content concentration of less than 1 ppm for each targeted PAH	Immediately
		Declarable	②All applications except those in the Banned category	_	_
26	Red p	hosphorus			
		Banned	①Resin or rubber.	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	 ①All applications except those in the Banned category ②Falls under the category of Banned, but is difficult to substitute and permission obtained from the adoption decision department within SDP. 	_	_
27	Isopro	povlphenvl pl	nosphate (PIP(3:1))		
21		Banned	 All applications except those in the Declarable category 	Not intentionally added.	Immediately
			①Used in adhesives or sealants and a permission from the adoption decision department in SDP was obtained.	_	6 Jan. 2024
		Declarable	 ②Used in lubricants or greases. ③Used in products or articles made of plastic recycled from products or articles containing PIP(3:1), where no new PIP(3:1) was added during the production of the products or articles made of recycled plastic. ④Using exemptions listed in USA TSCA SELECTION 6 PBT-chemicals other than above and having permission from adoption decision. 	_	-

*23 Substances having these CAS numbers:

50-32-8, 192-97-2, 56-55-3, 218-01-9, 205-99-2, 205-82-3, 207-08-9, 53-70-3

No.	Substance (Group)		Applications	Criteria (Value)	Date of Abolition				
28	Hexachlorobutadiene (HCBD)								
		Banned	All applications except those in the Declarable category	Not intentionally added.	Immediately				
		Declarable	①Unintentional production of HCBD as a byproduct in the production of chlorinated solvents.	-	-				
29	2,4,6-	tris(tert-but	yl)phenol (2,4,6-TTBP)	•					
		Banned	①All applications except those in the Declarable category	Not intentionally added.	Immediately				
		Declarable	①Used in articles.	-	-				
30	4,4'-is	sopropyliden	ediphenol (Bisphenol A)	•					
		Banned	①Used in thermal paper.	Content is less then 0.02 wt%.	Immediately				
		Declarable	①All applications except those in the Banned category	_	-				
31	4,4'−s	ulfonyldipher	nol (Bisphenol S)	•	•				
		Banned	①All applications except those in the Declarable category	Content is less then 0.02 wt%.	Immediately				
		Declarable	 Used for other than thermal paper. Used in thermal paper, containing equal to or greater than 0.02 wt%) and used for products with a limited destination and having permission from adoption decision. 	_	_				
32	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)								
		Banned	①All applications except those in the Declarable category	Not intentionally added.	Immediately				
		Declarable	①Used in Tri-acetyl cellulose (TAC) film in polarizers. ②Used in parts for Motor vehicles.	-	_				

No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
1	1,2-Bis(2,3,4,5,6-pentabromophenyl) ethane (DBDPE)			
2	Tetrabromobisphenol A (TBBPA)			Based on trends such as law and regulations, SDP will ban its use in the future. ^{*24}
3	Medium Chain Chlorinated paraffins (MCCPs, C14-17, chlorination levels at or exceeding 45% chlorine by weight)	- - ⊕All users	Not intentionally added.	
4	Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15– C21 PFCAs), their salts and C15–C21 PFCA-related substances			
5	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)		Not intentionally added.	
6	Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances		The following (1) and (2) are to be satisfied in the Mixture or Article. (1)The sum of PFHxA and their salts : Content is less than 0.0000025% (25ppb). (2)The sum of PFHxA-related substances and their combinations : Content is less than 0.0001% (1,000ppb).	
7	Bisphenols (excluding Bisphenol A and Bisphenol S)		Not intentionally added.	

*24 Depending on the timig when laws and regulations are fainalized, it may not be possible to set a grace period from the designation as SDP's "Banned substances" to the delivery prohibition date, so if it is contained, please proceed with the substitution as soon as possible. Refer to Chapter 1 "4. SDP Chemical Substance Management Categories".

	Materials and Components		
Categories	Applications	Criteria (Value)	Date of Abolition
Banned	 Materials and components for product packaging (cardboard, bags, cushioning materials, sheeting, tape, staples, binding bands, labels, cushions, paint, ink, etc.) Packaging materials for servicing parts (cardboard, bags, cushioning materials, sheeting, tape, staples, binding bands, labels, cushions, paint, ink, etc.) 	Total content 100 ppm or less in each component, ink, or paint that makes up the package	Immediately

_

①Packaging materials and components used for delivered parts

Declarable

and materials

Table 2-2-4 : Criteria for Content of Heavy Metals (Cadmium, Lead, Mercury, Hexavalent Chromium) in Packaging Materials and Components

3. List of main reference laws

Category	No.	Substances in the product Substance	Main reference laws etc.
	1	Hexavalent chromium compound	EU RoHS directive, EU REACH regulation Annex XVII
RoHS-related chemical	2	Polybrominated biphenyls (PBBs)	EU RoHS directive, EU REACH regulation Annex XVII
Substances	3	Polybrominated diphenyl ethers (PBDEs)	Japan CSCL, EU RoHS directive, EU REACH regulation Annex XVII
	4	Tributyl Tin Oxide (TBTO)	Japan CSCL
	5	Tri-substituted organostannic compounds	Japan CSCL, EU REACH regulation Annex XVII
	6	Beryllium and its compound	<sdp forbiddance="" own=""></sdp>
	7	Polychlorinated biphenyls (PCBs) and specific substitutes	Japan CSCL, EU POPs regulation Annex I
	8	Polychlorinated Terphenyls (PCTs)	EU REACH regulation Annex XVII
	9	Polychlorinated naphthalenes	Japan CSCL, EU POPs regulation Annex I
	10	Asbestos	Japan Industrial Safety and Health Act EU REACH regulation Annex XVII
	11	Phenol,2–(2H–benzotriazol–2–yl)–4,6–bis(1,1– dimethylethyl)	Japan CSCL
	12	Dimethyl fumarate	EU REACH regulation Annex XVII
	13	Arsenic and its compound	(Eu REACH regulation) *25
	14	Hexabromocyclododecane (HBCDD)	Japan CSCL, EU POPs regulation
	15	Short chain chlorinated paraffin	EU REACH regulation Annex XVII, EU POPs regulation Annex I
Other	16	Cobalt dichloride	(Eu REACH regulation) *25
	17	Refractory Ceramic Fibers, Aluminosilicate	(Eu REACH regulation) *25
	18	Refractory Ceramic Fibers, Zirconia Aluminosilicate	(Eu REACH regulation) *25
	19	Dibutyltin (DBT) compounds	EU REACH regulation Annex XVII
	20	Pentachlorothiophenol (PCTP)	USA TSCA
	21	Perfluorocarboxylic acids containing 9 to 14 carbon atoms in the chain (C9–C14 PFCAs), their salts and C9–C14 PFCA-related substances	EU REACH regulation Annex XVII
	22	Perfluorohexane-1-sulphonic acid (PFHxS), its salts and PFHxS-related substances	Swiss Chemical Risk Reduction Ordinance, POPs Convention
	23	Ozone-depleting substances	Montreal Protocol, USA Chlorofluorocarbon tax
	24	Dehlorane plus and its sys-isomer and anti- isomer	POPs Convention
	25	MOAH(Aromatic hydrocarbons of material oil comprising from 1 to 7 aromatic rings)	French domestic law

Presence of banned substances in the product

*25 "(EU REACH regulation)" means the substance which was listed in Authorisation List of SVHC.

Category	No.	Substance	Main reference laws etc.
Other	26	MOAH(Aromatic hydrocarbons of material oil comprising from 3 to 7 aromatic rings)	French domestic law
Other	27	MOAH(Aromatic hydrocarbons of material oil comprising from 16 to 35 aromatic rings)	French domestic law

Presence of banned substances depending on application

Category	No.	Substance	Main reference laws etc.
	1	Cadmium and its compound	EU RoHS directive, EU REACH regulation Annex XVII
RoHS-related	2	Lead and its compound	EU RoHS directive, EU REACH regulation Annex XVII, USA CPSIA
chemical Substances	3	Mercury and its compound	EU RoHS directive, EU REACH regulation Annex XVII
	4	Bis(2-ethylhexyl)phthalate (DEHP), Dibutyl phthalate (DBP), Bis(butylbenzyl) phthalate (BBP), Diisobutyl phthalate (DIBP)	EU RoHS directive(EU COMMISSION DELEGATED DIRECTIVE 2015/863), EU REACH regulation Annex XVII, USA CPSIA
	5	Nickel and its compound	EU REACH regulation Annex XVII
	6	Dioctyltin (DOT) compounds	EU REACH regulation Annex XVII
	7	Beryllium and its compound	<sdp forbiddance="" own=""></sdp>
	8	Perfluorooctane sulfonate (PFOSs)	Japan CSCL, EU POPs regulation Annex I, Canadian Environmental Protection Act
	9	Fluorinated greenhouse gases (HFC, PFC, SF6)	EU F-Gas Regulation(517/2014)
	10	Polyvinyl Chloride and its copolymer	<sdp forbiddance="" own=""></sdp>
	11	Azo colorants	EU REACH regulation Annex XVII
	12	Radioactive substances	Act on Prevention of Radiation Hazards due to Radioisotopes, etc., Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors
Other	13	Formaldehyde	Germany Chem Verbots V, Denmark formaldehyde regulations
	14	Phthalates	EU REACH regulation Annex XVII, USA CPSIA
	15	Arsenic and its compound	(Eu REACH regulation) *25
	16	Arsenic and its compound (other than Diarsenic Pentoxide and Diarsenic trioxide)	(Eu REACH regulation) *25
	17	Boric acid	(Eu REACH regulation) *25
	18	Disodium tetraborate, anhydrous, Tetraboron disodium heptaoxide, hydrate	(Eu REACH regulation) *25
	19	Perfluorooctanoic acid (PFOA) and its salts and PFOA-related substances	EU POPs regulation Annex I
	20	Chlorinated flame retardants	<sdp forbiddance="" own=""></sdp>

^{*25} $''({\rm EU}\ {\rm REACH}\ {\rm regulation})''$ means the substance which was listed in Authorisation List of SVHC.

Category	No.	Substance	Main reference laws etc.
	21	Halogenated compound (Halogenated flame retardant etc.)	EU 2019/2021 (ecodesign requirements for electronic displays) USA Revised Code of Washington
	22	Tris (2-chloroethyl) phosphate (TCEP)	USA VT Act85, (Eu REACH regulation) ^{*25}
	23	Tris(2-chloro-1-methylethyl) phosphate (TCPP)	USA VT Act85
	24	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	USA VT Act85
	25	Polycyclic aromatic hydrocarbons (PAHs)	EU REACH regulation Annex XVII
Other	26	Red phosphorus	<sdp forbiddance="" own=""></sdp>
Other	27	Isopropylphenyl phosphate (PIP(3:1))	USA TSCA
	28	Hexachlorobutadiene (HCBD)	USA TSCA
	29	2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP)	USA TSCA
	30	4,4'-isopropylidenediphenol (Bisphenol A)	EU REACH regulation Annex XVII, Swiss Chemical Risk Reduction Ordinance, US CT Public Act No.11–222
	31	4,4'-sulfonyldiphenol (Bisphenol S)	Swiss Chemical Risk Reduction Ordinance
	32	2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)	POPs Convention

^{*25} $''({\rm EU}~{\rm REACH}~{\rm regulation})''$ means the substance which was listed in Authorisation List of SVHC.

No.	Substance	Main reference laws etc.
1	1,2–Bis(2,3,4,5,6–pentabromophenyl) ethane (DBDPE)	CEPA 1999
2	Tetrabromobisphenol A (TBBPA)	EU RoHS directive
3	Medium Chain Chlorinated paraffins (MCCPs, C14–17, chlorination levels at or exceeding 45% chlorine by weight)	EU RoHS directive
4	Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15–C21 PFCAs), their salts and C15–C21 PFCA–related substances	POPs Convention Canadian Environmental Protection Act
5	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)	US Specified State TIP
6	Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances	EU REACH regulation Annex XVII
7	Bisphenols (excluding Bisphenol A and Bisphenol S)	Laws and regulations in Europe, USA and Canada

Candidate substances to be banned

O Inquiries

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Depending on the content of the inquiry, the person in charge of the department requesting the survey may reply.

Thank you for your understanding.

Ver.	Revision Data	Revised Content	Details
1.0	December 2020	Newly enacted	-
2.0	November 2021	•Addition of banned substances	Table.2-1-1(P8), Table.2-2-1(P12), List of main reference laws(P22) : Added the following substances No.21 Pentachlorothiophenol(PCTP)
		•Addition of Banned substances	Table.2-1-2(P9), Table.2-2-2-1(P20,21), List of main
		depending on applocation	reference laws(P24) : Added the following substances
			No.26 Isopropylphenyl phosphate(PIP(3:1)) No.27 Hexachlorobutadiene(HCBD)
			No.28 2,4,6-tris(tert-butyl)phenol(2,4,6-TTBP)
			No.29 4,4'-isopropylidenediphenol(Bisphenol A)
			No.30 4,4'-sulfonyldiphenol(Bisphenol S)
			No.31 Halogenated flame retardant
		Change Rule of Banned	•Table.2-2-2-1(P14,15) "No.2 Lead and its compounds"
		substances depending on	Deletion of excluded use (7(c)– \mathbf{N}), due to expiration
		applocation	 Table.2-2-2-2(P16) "No.8 Perfluorooctane sulfonate (PFOSs)"
			Deletion of some excluded uses, due to expiration
			 Table.2-2-2-2(P16) "No.8 Perfluorooctane sulfonate (PFOSs)"
			Change of reference value "50 ppm or less in substances or preparations" \rightarrow "10 ppm or less in substances or
			preparations"
			•Table.2-2-2-2(P18) "No.19 Perfluorooctanoic acid (PFOA and its salts and PFOA-related substances"
			Change of management use ③ "EU REACH regulation
			Annex XVII Entry68 ["] → ["] EU PoPs regulation Annex I Parts A ["]
			•List of main reference laws(P23) "No.19 Perfluorooctanoi
			acid (PFOA) and its salts and PFOA-related substances
			Change of law ″EU REACH regulation Annex X WI″→
			"EU PoPs regulation Annex I"
2.0	D	•Add to Candidate substances	Candidate substances to be banned newly added to the
3.0	December 2022	to be banned	chemical substance management category(P3)
			Table.2-1-3(P10), Table.2-2-3(P22), List of main reference
			laws(P25)
			Set the following substances
			No.1 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
			No.2 Dechlorane plus and its syn-isomer and anti-isomer
			No.3 1,2-Bis(2,3,4,5,6-pentabromophenyl) ethane (DBDPE
			No.4 Tetrabromobisphenol A (TBBPA)
			No.5 Medium Chain Chlorinated paraffins (MCCPs, C14–1 chlorination levels at or exceeding 45% chlorine by weight)
			No.6 Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances
			No.7 Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS

Ver.	Revision Data	Revised Content	Details
3.0	December 2022	 Addition of banned substances 	Table.2-1-1(P8), Table.2-2-1(P12), List of main reference
3.0	December 2022		laws(P23)
			Set the following substances
			No.21 Perfluorocarboxylic acids containing 9 to 14 carbon
			atoms in the chain (C9–C14 PFCAs), their salts and
			C9-C14 PFCA-related substances
			No.22 Perfluorohexane-1-sulphonic acid (PFHxS), its salts
			and PFHxS-related substances
		 Update of EU RoHS directive 	Table.2-2-2-1(P13-P15)
		exempted applications	
4.0	October 2023	 Addition of Banned substances 	Table.2-1-1(P8)、Table.2-2-1(P12-13)、List of reference
			laws(P24-25)
			Set the following substances
			No.24 Dehlorane plus and its sys-isomer and anti-isomer
			No.25 MOAH(Aromatic hydrocarbons of material oil
			comprising from 1 to 7 aromatic rings)
			No.26 MOAH(Aromatic hydrocarbons of material oil
			comprising from 3 to 7 aromatic rings)
			No.27 MOAH(Aromatic hydrocarbons of material oil
			comprising from 16 to 35 aromatic rings)
		 Addition of Banned substances 	Table.2-1-2(P9), Table.2-2-2-2(P22), List of reference
		depending on applocation	laws(P26)
			Set the following substances
			No.32 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
		•Change of Banned substances	(UV-328) Table.2-1-2(P9), Table.2-2-2-2(P20), List of reference
		depending on applocation	laws(P26)
			Change the following substances
			No.21 Halogenated compound
			(Halogenated flame retardant etc.)
			Change the following criteria (Value)
			(1)Halogenated flame retardants are Not intentionally addes.
			(2)Total content of the halogen elements in the
			homogeneous material is 0.1 wt% or less.
		•Change of Banned substances	•Table.2-2-1(P11) No.3
			Change the following criteria (Value) of Polybrominated
			diphenylethers
			(1)All parts and materials must contain 1,000 ppm or less
			(2)In the cace of parts/materials used for products other
			than regulated, content is less than 500 ppm in the
			Mixture or Article
			•Table.2-2-1(P12) No.15
			Change the following criteria (Value) of Short-chain
			chlorinated paraffins
			Content is less than 1,000 ppm and Not intentionally added

4.0 October 2023 •Change of Gandidate substances to be banned Table 2-2-3(P23), List of reference laws(P26) •Change of Banned substances to be banned •Change of Banned substances to be banned •Change of Candidate substances to be banned -2(24) Footscriptical-2y-10-46-ditertpartybahenol (UV-328) •Change of Candidate substances to be banned No.4 Perfluence=to:Deltaria publications •Call Footscriptical-2y-10-46-ditertpartybahenol (UV-328) •Change of Candidate substances to be banned No.4 Perfluence=to:Deltaria publication of Candidate substances to be banned No.4 Deftariants No.4 Deftariants No.4 Deftariants No.7 Disphenols (excluding Bisphenol A and Bisphenol S) No.7 Bisphenols (excluding Bisphenol A and Bisphenol S)	Ver.	Revision Data	Revised Content	Details
 to be banned Change of Banned substances Dehlorane plus and its sys-isomer and anti-isomer Change of Banned substances depending on applocation 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) Addition of Candidate substances to be banned No.4 Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15-C21 PFCAs), their salts and C15-C21 PFCA-related substances 		October 2023	 Change of Candidate substances 	Table.2-2-3(P23), List of reference laws(P26)
 Change of Banned substances depending on applocation 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) Addition of Candidate substances to be banned No.4 Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15-C21 PFCAs), their salts and C15-C21 PFCA-related substances 	4.0	October 2023	to be banned	•Change of Banned substances
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) •Addition of Candidate substances to be banned No.4 Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15-C21 PFCAs), their salts and C15-C21 PFCA-related substances				Dehlorane plus and its sys-isomer and anti-isomer
•Addition of Candidate substances to be banned No.4 Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15–C21 PFCAs), their salts and C15–C21 PFCA-related substances				•Change of Banned substances depending on applocation
No.4 Perfluorocarboxylic acids containing 15 to 21 carbon atoms in the chain (C15-C21 PFCAs), their salts and C15-C21 PFCA-related substances				2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
atoms in the chain (C15–C21 PFCAs), their salts and C15–C21 PFCA–related substances				 Addition of Candidate substances to be banned
C15-C21 PFCA-related substances				No.4 Perfluorocarboxylic acids containing 15 to 21 carbon
				atoms in the chain (C15-C21 PFCAs), their salts and
No.7 Bisphenols (excluding Bisphenol A and Bisphenol S)				C15-C21 PFCA-related substances
				No.7 Bisphenols (excluding Bisphenol A and Bisphenol S)