

SHARP

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

- Ver. 5.0 -

February 2025

Sharp Corporation

Revision History

No.	Revision Date	Revised Content	Details
1.0	Dec. 2019	First edition	
2.0	Feb. 2022	Chapter 2 Revamped substance list	<p>Added</p> <ul style="list-style-type: none"> • Banned substances <ul style="list-style-type: none"> - Pentachlorothiophenol (PCTP) • Substances banned depending on the application <ul style="list-style-type: none"> - Isopropylphenyl phosphate (PIP(3:1)) - Hexachlorobutadiene (HCBD) - 2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP) - 4,4'-isopropylidenediphenol (Bisphenol A) - 4,4'-sulfonyldiphenol (Bisphenol S) - Halogenated flame retardant
		Chapter 2 Revamped criteria (values)	<ul style="list-style-type: none"> • Change in Check point (Criteria) <ul style="list-style-type: none"> - Perfluorooctane sulfonate (PFOS) - Tris (2-chloroethyl) phosphate (TCEP) - Tris (1,3-dichloro-2-propyl) phosphate (TDCPP) <p>Update of EU RoHS directive exempted applications</p>
3.0	Dec. 2022	Chapter 1	<ul style="list-style-type: none"> • "Candidate substances to be banned" was newly established as a candidate for Sharp's "Banned substances". • Reflected the change of SCOPE login authentication method.
		Chapter 2 Revamped substance list	<p>Added</p> <ul style="list-style-type: none"> • Candidate substances to be banned Newly added "Candidate substances to be banned" to "Sharp Chemical Substance Management Categories" and set 7 substances. <ul style="list-style-type: none"> - 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) - Dechlorane plus and its syn-isomer and anti-isomer - 1,2-Bis(2,3,4,5,6-pentabromophenyl)ethane (DBDPE) - Tetrabromobisphenol A (TBBPA) - Medium Chain Chlorinated paraffins (MCCPs, C14-17, chlorination levels at or exceeding 45% chlorine by weight) - Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances - Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) • Banned substances <ul style="list-style-type: none"> - Perfluorocarboxylic acids containing 9 to 14 carbon atoms in the chain (C9-C14 PFCAs), their salts and C9-C14 PFCA-related substances - Perfluorohexane-1-sulphonic acid (PFHxS), its salts and PFHxS-related substances
		Chapter 2 Revamped criteria (values)	<ul style="list-style-type: none"> • Change in Check point (Criteria) <ul style="list-style-type: none"> - Halogenated flame retardant • Update of EU RoHS directive exempted applications
4.0	Feb. 2024	Chapter 1	<ul style="list-style-type: none"> • Revised the description of the Applicable Scope of packaging materials, etc. • "Smart Work Solutions Business Unit, Smart Business Solutions BU (SBS-SWS)" was newly established under the Business Unit Classifications.
		Chapter 2 Revamped substance list	<p>Added</p> <ul style="list-style-type: none"> • Banned substances <ul style="list-style-type: none"> - Dechlorane plus and its syn-isomer and anti-isomer - MOAH (Aromatic hydrocarbons of mineral oil), MOSH (Saturated hydrocarbons of mineral oil) • Substances banned depending on the application <ul style="list-style-type: none"> - 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) • Candidate substances to be banned <ul style="list-style-type: none"> - Perfluorocarboxylic acids containing 15 to 21 carbon atoms

			<ul style="list-style-type: none"> in the chain (C15-C21 PFCA), their salts and C15-C21 PFCA-related substances - Bisphenols (excluding Bisphenol A and Bisphenol S) -
		Chapter 2 Revamped criteria (values)	<ul style="list-style-type: none"> • Change in Check point (Criteria) <ul style="list-style-type: none"> - Polybrominated diphenylethers (PBDEs) - Short-chain chlorinated paraffins (SCCPs, C10–C13) • Halogenated compound (Halogenated flame retardant etc.)
5.0	Jan.2025	Chapter 1	<ul style="list-style-type: none"> • Added “5. Business Unit Classification”
		Chapter 2	<ul style="list-style-type: none"> • (1) Banned substances <ul style="list-style-type: none"> Added - Perfluorooctane sulfonate (PFOS), its salts and PFOS-related substances Deleted -Perfluorohexane-1-sulphonic acid (PFHxS), its salts and PFHxS-related substances -MOAH (Aromatic hydrocarbons of mineral oil comprising from 1 to 7 aromatic rings) - MOAH (Aromatic hydrocarbons of mineral oil comprising from 3 to 7 aromatic rings) - MOSH (Saturated hydrocarbons of mineral oil comprising from 16 to 35 carbon atoms) Changed number According to the addition of No.21 Perfluorooctane sulfonate (PFOS), its salts and PFOS-related substances • (2) Substances banned depending on the application <ul style="list-style-type: none"> Added -Perfluorohexane-1-sulphonic acid (PFHxS), its salts and PFHxS-related substances -MOAH (Aromatic hydrocarbons of mineral oil comprising from 1 to 7 aromatic rings) - MOAH (Aromatic hydrocarbons of mineral oil comprising from 3 to 7 aromatic rings) - MOSH (Saturated hydrocarbons of mineral oil comprising from 16 to 35 carbon atoms) Deleted - Perfluorooctane sulfonate (PFOS), its salts and PFOS-related substances • (3) Candidate substances to be banned <ul style="list-style-type: none"> Deleted - Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances Changed number According to the deletion of Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances • (4) Managed substances <ul style="list-style-type: none"> Added -LR09 China RoHS (China) Electronic Equipment Restriction and Management of the Use of Hazardous Substances in Electronic Equipment

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This standard manual is issued for external use as the simplified version of the “Survey Manual for Chemical Substances Contained in Parts and Materials-Ver.14.0” and its “Supplementary Volume Ver.14.0” for survey of chemical substances contained in parts and materials that are used by the Sharp Group.

Chapter 1: Survey of Chemical Substances Contained in Parts and Materials

1. Purpose

The Sharp Group (hereinafter referred to as “Sharp”) 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 Sharp 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”.

https://global.sharp/corporate/eco/supplier/g_procure/

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 Sharp that indicates whether substances banned by Sharp are contained in delivered goods.	Posted on the Sharp Green Procurement website https://global.sharp/corporate/eco/supplier/g_procure/
Content Survey	Survey done via the Sharp SCOPE procurement portal site on the amounts of chemical substances contained in delivered goods.	Disclosed only to our supplier’s organizations The responding method is explained in the “Survey Manual for Chemical Substances Contained in Parts and Materials”.

2. Applicable Scope

This survey applies to all products shipped by Sharp¹ (hereinafter referred to as Sharp products), all parts and materials used in Sharp products, and their packaging³ materials. Specifically, it applies to the following items.

- (1) Parts, materials, units incorporated in Sharp product
- (2) Indirect materials used in production and incorporated into Sharp product (solder, oil, grease, tape, marking ink [marker pens], etc.)
- (3) Finished products purchased for sale, optional equipment, supplies, etc.
- (4) Prints not used or included together with Sharp products (such as delivery slip, Inspection report) are excluded.

Direct printing (such as logos) onto Sharp products are inapplicable to the printing written in this section.

- (5) Packaging materials enclosing or holding Sharp product
- (6) Packaging materials used by suppliers of parts, materials, etc. to transport and protect parts, materials, etc.²

※ Packaging materials listed in (5) are excluded from investigation in the "Report on Chemical Substances Contained in the Product" and "Content Survey." For details, refer to the “Remarks” column under section “6. (1) List of Documents to Be Submitted”.

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
- Polyvinyl chloride, flame retardants, and stabilizers in lead wire insulation
- 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.

¹ Includes products shipped between Sharp Group companies.

² Packaging materials are used to transport, protect, and contain goods, and in principle become unnecessary as soon as the product is used. Printing on packaging and printed labels affixed to packaging are included in packaging.
[Example] Cardboard paper, plastic bags, cushioning materials, protective films, adhesive tapes, staples, bands for securing loads, and labels, paints, and inks for them.

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 Sharp’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 Sharp is prohibited <ul style="list-style-type: none"> • Immediately ... immediately prohibition of use. • (Designated date: Day__ Month__ Year__) Delivery after the designated date is prohibited.
RoHS RoHS Directive	Refers to EU RoHS Directives 2011/65/EU and the related amended Directive

4. Sharp Chemical Substance Management Categories

As shown in the table below, chemical substances contained in the parts and materials purchased by Sharp 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, Sharp will not purchase parts and materials containing these substances.	<ul style="list-style-type: none"> 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 Sharp depending on the application (excluded applications). In excluded applications, these substances shall be treated as Managed substances.	<ul style="list-style-type: none"> Substances that Sharp regulates on its own 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.	<ul style="list-style-type: none"> Substances 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 Sharp's "Candidate substances to be banned" at this time, but in the future based on the trends of laws and regulations, etc. Specify for Sharp'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 Sharp'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.	<ul style="list-style-type: none"> 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 Sharp-specific survey-targeted chemical substances that do not fall under the category of "Sharp-banned substances" shall be treated as Managed substances.

5. Business Unit Classifications

Sharp classifies its business units that receive delivered parts and materials according to the table below, and specifies the chemical substances to be surveyed, substances banned from use, etc., based on these classifications.

Classification	Applicable In-House Companies and Business Units
Product Business Units (hereinafter referred to as “Product Groups”)	<ul style="list-style-type: none"> • Smart Appliances & Solutions BU (SAS) • TV Systems BU (TVS) • Sharp Energy Solution Corporation (SESJ) • Smart Business Solutions BU (SBS) 〔Other than Smart Work Solutions BU (SWS)〕
Mobile Communication Business Unit (hereinafter, “Mobile Communication”)	<ul style="list-style-type: none"> • Mobile Communication Business Unit
Device Business Unit (hereinafter, “Device Groups”)	<ul style="list-style-type: none"> • Sharp Sensing Technology Corporation (SSTC) • Sharp Display Technology Corporation (SDTC) • Sharp Semiconductor Innovation Corporation (SSIC) • Sharp Fukuyama Laser Co., Ltd. (SFL)
Smart Work Solutions Business Unit, Smart Business Solutions BU (hereinafter, “SBS-SWS ”)	<ul style="list-style-type: none"> • Smart Business Solutions BU (SBS) 〔Smart Work Solutions BU (SWS)〕

6. Classification of Items Procured by Sharp

(1) Classification of Items Procured by Sharp

At Sharp, 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 Items	Specified Item A (Items with large social responsibility)	1. Sharp-developed procured item • Procured item developed by Sharp, or that uses chemicals specified by Sharp • Procured item bearing the Sharp brand	Procured items for copiers (toner, developer, ink, etc.), ink ribbon, ink roll, air purifier filter, vacuum cleaner bag, Sharp custom-order product (procured items with Sharp-designated model number), etc.
		2. Procured item in powder, liquid, or gas form • Sharp-developed procured item to which users and other organisms are directly exposed to	Sharp-designated cleaning agent (for air conditioners, washing machines, etc.), base material for composters, etc.
	Specified Item B (Items that come into contact with food or eating utensils, or that use special chemicals)	1. 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.
		2. 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

7. Documents to Be Submitted

(1) List of Documents to Be Submitted

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

Document	Format	Method of Submission	Chemical Substances Targeted in Survey ³	Remarks
Report on Chemical Substances Contained in the Product	Report on Chemical Substances Contained in the Product ⁴	Submitted by attaching to specifications for newly adopted parts and materials	<p>Sharp-banned substances</p> <ul style="list-style-type: none"> •Banned substances •Substances banned depending on the application •Candidate substances to be banned <p>⊕</p> <p>For Device Groups, SBS-SWS⁵, add banned substances</p> <ul style="list-style-type: none"> •Banned substances •Substances banned depending on the application 	<p>Range of applicable packaging materials:</p> <ul style="list-style-type: none"> • 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 Sharp bases⁶ and for which there is no risk of migration or contamination by targeted substances from the packaging materials into parts or materials are not subject to the survey.
Content Survey	chemSHERPA Article Tool ⁷	Upload to SCOPE system ⁸	<p>chemSHERPA Managed substances⁹</p> <p>⊕</p> <p>For Mobile Communication BU, Device Groups and SBS-SWS, add Sharp-specific survey-targeted chemical substances</p> <p>* Answers to SBS-SWS are required to be submitted in the form of a full-material declaration (FMD).</p>	<p>Range of applicable packaging materials:</p> <ul style="list-style-type: none"> • Packaging materials cannibalized for use as packing for servicing parts <u>are</u> subject to the survey. • Packaging materials used when other parts and materials are delivered are not subject to investigation. <p>Range of applicable indirect materials:</p> <ul style="list-style-type: none"> • 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 ¹⁰)	Submitted by attaching to specifications for newly adopted parts/materials	The ten substances regulated under RoHS (lead, mercury, cadmium, hexavalent chromium, PBB, PBDE, DEHP, DBP, BBP, DIBP)	—
Composition Table, SDS ¹¹	Industry standards		—	—
Food Sanitation Act Test Data	Certificate of analysis, etc.		—	—
Safety Evaluation Data	Evaluation data from analysis laboratories, etc.		Refer to “Criteria for Safety Evaluation Data” (p6) in the“(2) Documents to Be Submitted for Each Item” section.	—

³ Chemical substances subject to the survey may be changed or added depending on trends in regulations and customer requests. We may ask you to survey other substances as well depending on the business unit or base in the Sharp Group.

⁴ The Report on Chemical Substances Contained in the Product will be posted on the Sharp Green Procurement website (https://global.sharp/corporate/eco/supplier/g_procure/).

⁵ Sharp-banned substances differ among the Product Groups, Mobile Communication, and Device Groups and SBS-SWS.

⁶ “Bases” refers to Sharp plants and service bases in Japan and overseas.

⁷ The chemSHERPA Article Tool is available from the chemSHERPA website < <https://chemsherpa.net/english> >.

⁸ SCOPE system (< <https://skc.jp.sharp/webedi/top/scope/> >). Changed URL and login authentication method from May 2022.

⁹ For information on chemSHERPA Managed substances, refer to *Explanation of chemSHERPA Declarable Substances* (posted on <<https://chemsherpa.net/english>>).

¹⁰ Refer to the Sharp Green Procurement website <https://global.sharp/corporate/eco/supplier/g_procure/>.

¹¹ SDS: Safety Data Sheet

(2) Documents to Be Submitted for Each Item

Information to be submitted for each category of items that Sharp 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; ▲ = Submit if possible; – = Not required)

	Specified Items				General Items	
	Specified Item A	Specified Item B-1	Specified Item B-2	Specified Item C		
Report on Chemical Substances Contained in the Product	●	●	●	●	●	
Content Survey	●	●	●	●	●	
Analysis Data of RoHS Target Substances	●	●	●	●	●	
Composition Table, SDS ¹²	●	–	● ¹³	–	–	
Food Sanitation Act Test Data	–	●	–	–	–	
Safety Evaluation Data ¹⁴	1) Acute toxicity (oral intake)	●	–	–	●	–
	2) Skin irritancy ¹⁵	●	–	–	●	–
	3) Eye/mucous membrane irritancy ¹⁶	●	–	–	●	–
	4) Mutagenicity test (Ames test)	● ¹⁷	–	–	● ¹⁸	–
	5) Mutagenicity test, chromosomal aberration test	▲	–	–	▲	–
	6) Mutagenicity test, micronucleus test	▲	–	–	▲	–

Criteria for Safety Evaluation Data

Test Item	Hazard Identification Criteria	(Reference) Test Method (OECD test no.) ¹⁹
1) Acute toxicity (oral intake)	Oral: Lethal dose 50% (LD50>2000 mg/kg (Rat))	423, 425
2) Skin irritancy	Primary irritation index (PII ≥ 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

¹² Submit when there is the possibility of exposure.

¹³ Submit SDS for antibacterial and antimold agents.

¹⁴ Submit when there is the possibility of exposure.

¹⁵ Not necessary if no direct exposure to skin, eyes, or mucosa.

¹⁶ Not necessary if no direct exposure to skin, eyes, or mucosa.

¹⁷ Also submit as much other genotoxicity data as possible in addition to tests in 5) and 6).

¹⁸ Also submit as much other genotoxicity data as possible in addition to tests in 5) and 6).

¹⁹ OECD Guidelines for the Testing of Chemicals located at:

<https://www.oecd.org/en/topics/sub-issues/testing-of-chemicals/test-guidelines.html>

Chapter 2: Chemical Substances Subject to the Survey, Criteria

(Common to All Business Units)

1. List of Chemical Substances Subject to the Survey

Chemical substances contained in parts and materials purchased by the Sharp Group (hereinafter referred to as “Sharp”) 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.²⁰

Further, there may be cases where the banned substances or managed substances are added by some Business Units, etc.

(1) Banned substances

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

Table 2-1-1: Banned substances

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

²⁰ For Chemical Substance Management Categories, please refer to Chapter 1 "4. Sharp Chemical Substance Management Categories".

(2) Substances Banned Depending on the Application

The substances shown in Table 2-1-2 are treated by Sharp 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.

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

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

²¹ The four types of phthalates (DEHP, DBP, BBP and DIBP) are mainly used as plasticizers for soft resins, and have the property of being transferred from other products by contact (migration). Since there is a possibility of transfer from packaging to parts and materials, please report the substances containing in the packaging with the same standard (threshold).

²² Even though reporting under chemSHERPA is not required because they do not fall in the category of chemSHERPA declarable substances, we ask that you report their content status anyway in the Sharp "Report on Chemical Substances Contained in the Product". However, for Communication, Device Groups, and SBS-SWS, handle them as Sharp-specific survey-targeted chemical substances and use chemSHERPA to respond.

²³ Applies to all the following CAS RN®: 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.

²⁴ Even though reporting under chemSHERPA is not required because they do not fall in the category of chemSHERPA declarable substances, we ask that you report their content status anyway in the Sharp "Report on Chemical Substances Contained in the Product". However, for Device Groups, handle them as Device Group-specific survey-targeted chemical substances and use chemSHERPA to respond.

Category	No.	Substance (Group)	Exempted Applications
Other	33	MOAH (Aromatic hydrocarbons of mineral oil comprising from 1 to 7 aromatic rings)	See Table 2-2-2-2
	34	MOAH (Aromatic hydrocarbons of mineral oil comprising from 3 to 7 aromatic rings)	
	35	MOSH (Saturated hydrocarbons of mineral oil comprising from 16 to 35 carbon atoms)	

(3) Candidate substances to be banned

The substances shown in Table 2-1-3 are Sharp'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, Sharp will ban its use in the future.

If it is contained, please promote substitution.

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

No.	Substance (Group)	Criteria (Value)
1	1,2-Bis(2,3,4,5,6-pentabromophenyl)ethane (DBDPE)	See Table 2-2-3
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), which is designated as a declarable substance in the latest version of chemSHERPA	
6	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) other than No.5 above	
7	Bisphenols (excluding Bisphenol A and Bisphenol S) ²⁵	

²⁵ Bisphenol A and bisphenol S are Substances banned depending on the application (Table 2-1-2. No. 30, 31).

(4) Managed substances

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

Table 2-1-4: chemSHERPA Management Criteria

Relevant Criteria ID	Covered Laws & Regulations, Industrial Criteria
LR01	Japan Chemical Substances Control Act Class I specified chemical substance
LR02	USA Toxic Substances Control Act (TSCA): Section 6; prohibited or restricted substances
LR03	EU ELV Directive 2000 / 53 / EC
LR04	EU RoHS Directive 2015/863/EU Annex II
LR05	EU POPs Regulation (EC) No 2023/1608 Annex I
LR06	EU REACH regulation (EC) No. 1907/2006 Candidate List of SVHC for Authorisation and Annex XIV
LR07	EU REACH Regulation (EC) No 2024/1328 Annex XVII (Restricted Substances)
LR08	EU Medical Device Regulation (MDR) (EU) No 2017/745 Annex I 10.4 chemical substances
LR09	China RoHS (China) Electronic Equipment Restriction and Management of the Use of Hazardous Substances in Electronic Equipment
IC01	Global Automotive Declarable Substance List (GADSL)
IC02	IEC 62474 DB Declarable substance groups and Declarable substances

• **Criteria for Providing Composition Information for Managed substances**

Criteria for Providing Composition information for Managed substances given in Table 2-1-5 are as listed under the “Reporting Threshold” column.

Criteria for Providing Composition information for Managed substances other than for Managed substances listed in Table 2-1-5 shall conform to the chemSHERPA Criteria for Providing Composition Information.

Note: In the case of Device Groups and Communication BU, there may be cases where “Criteria for Providing Composition Information” has additionally been defined.

Table 2-1-5: Managed substances

Substance (Group)	SNN ²⁶	Reporting Threshold
Bromine-based flame retardants (PBB, PBDE, or except HBCDD)	SN0015	<ul style="list-style-type: none"> • 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>

²⁶ Serial number set by chemSHERPA. Enter this number in the “CAS No.” field under composition information in chemSHERPA.

2. List of Criteria for Banned Substances

(1) Banned substances

Table 2-2-1: Criteria (Reference Values) of Banned substances

CAT	No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
RoHS-related chemical Substances	1	Hexavalent chromium compounds	①Pigments and dyes used in plastics (including rubber) ②Pigments, paints, inks ③Rust-preventive plating treatments ④Batteries ⑤All uses including catalysts	Content is 1,000 ppm or less.	Immediately
			⑥Leather products/components that come into contact with the human skin	Less than 3 ppm per total dry weight of leather	
			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
	3	Polybrominated diphenylethers (PBDEs)	①All uses including flame retardants for plastics	The following (1) and (2) are satisfied. (1) Content is 1000ppm or less in all parts / materials. (2) In the case of parts/materials used for products other than those regulated by the EU RoHS Directive, Content is less than 500ppm in the Mixture or Article.	Immediately
Other	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 of tin is 1,000 ppm or less. Not intentionally added.	Immediately
	6	Polychlorinated biphenyls (PCBs) and specific substitutes	①All uses including insulating oils and lubricating oils	Not intentionally added.	Immediately
	7	Polychlorinated naphthalenes	①All uses including lubricating oils and paints	Not intentionally added. (having 1 to 8 chlorine atoms)	Immediately
	8	Short-chain chlorinated paraffins (SCCPs) (C10-C13)	①All uses including pigments, paints, inks, lubricants, and plasticizers	Content is less than 1000ppm in the Article and Not intentionally added.	Immediately
	9	Asbestos	①All uses including insulation materials and filling agents	Not intentionally added.	Immediately

CAT	No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
Other	10	Polychlorinated terphenyls (PCTs)	①All uses	Content is 50 ppm or less. 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	Hexabromocyclododecane (HBCDD)	①All uses	Content is 100 ppm or less. Not intentionally added.	Immediately
	13	Cobalt dichloride	①All uses	Content is 1,000 ppm or less. Not intentionally added.	Immediately
	14	Dimethyl fumarate	①All uses	Content is 0.1 ppm or less. Not intentionally added.	Immediately
	15	Aluminosilicate, refractory ceramic fibers	①All uses	Not intentionally added.	Immediately
	16	Zirconia aluminosilicate, refractory ceramic fibers	①All uses	Not intentionally added.	Immediately
	17	Dibutyltin (DBT) compounds	①All uses	1,000 ppm or less as elemental tin in material.	Immediately
	18	Pentachlorothiophenol (PCTP)	①All uses	Content is 1wt% or less.	Immediately
	19	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

CAT	No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
Other	20	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% (1000ppb) or less.	1 Jan. 2023
	21	Perfluorooctane sulfonate (PFOS), its salts and PFOS-related substances	①All uses	The following (1) and (2) are to be satisfied in the Mixture or Article. (1) The sum of PFOS and their salts: Content is 0.0000025% (25ppb) or less. (2) The sum of PFOS – related substances: Content is 0.0001% (1000ppb) or less.	Immediately
	22	Dechlorane plus and its syn-isomer and anti-isomer	①All uses	Not intentionally added.	Immediately
	23	Ozone-depleting substances	①All uses	Not intentionally added.	Immediately

(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 SHARP's policy of delivery dates to SHARP and EU RoHS exemption's due date.

- 1) In principle, SHARP set up delivery prohibition date to SHARP 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 SHARP is "21 Jan. 2021".
- 2) If the deadline of RoHS Exemption is changed after issuance of this standard manual for management of chemical substances contained in parts and materials (referred to as "materials), in principle, the delivery prohibition date to SHARP 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.

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

No.	Substance (Group)	Applications	RoHS Exemption ²⁷	Criteria (Value)	Date of Abolition		
1	Cadmium and its compounds	Banned ① Stabilizers, pigments, and dyes used in plastics (including rubber) ② Pigments, paints, inks ③ Surface treatments (plating, etc.), coatings ④ Small fluorescent lamps, straight-tube fluorescent lamps ⑤ All applications except those in the Declarable category	-	Content is 100ppm or less.	Immediately		
			⑥ Packaging materials, packaging components	-	See Table 2-2-4		
			Declarable ① 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" (e) DC switches rated at 20A and more at 18V DC and more" (f) Switches for use at voltage supply frequency >= 200 Hz	8(b)-I	-	(Under deliberation for exemption renewal in EU) ²⁸	
				② Used in striking optical filter glass types, excluding applications falling under point 39 of EU RoHS directive annex III	13(b)-(II)	-	
				③ Used in white glass used for an optical purpose	13(b)-(III)	-	
				④ Using exemptions listed in EU RoHS directive other than above and having permission from adoption decision.	-	-	※ ²⁹
		⑤ Batteries	-	In compliance with EU battery regulation	-		

²⁷ Nos. of the exempted applications in the RoHS Directive Annex III are shown.

²⁸ An application for extension of exemption was accepted in the EU, and it is under deliberation at the time of issuance of this Standard Manual for Management of Chemical Substances Contained in Parts and Materials. This exemption is valid during deliberation. When the deadline is decided, delivery prohibition date to SHARP will be six months before the deadline.

²⁹ In principle, SHARP set up delivery prohibition date to SHARP as "six month" before the due date of EU RoHS exemption.

No.	Substance (Group)	Applications	RoHS Exemption	Criteria (Value)	Date of Abolition
2	Lead and its compounds				
	Banned	① Stabilizers, pigments, and dyes used in plastics (including rubber) (AC adapters, power cords, connection cables, etc.) ② Pigments, paints, inks ③ Balancer weights ④ Lead solder (solder for component mounting, 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 ⑥ Parts and materials for toy applications, 0.009% or more used per unit in surface coatings such as paint ⑦ All applications except those in the Declarable category	-	Contained at less than below: ① In resins: 300 ppm ② Other: 1,000 ppm	Immediately
		⑧ Packaging materials, packaging components	-	See Table 2-2-4	
	Declarable	① Used in high-melting point solder (lead-based alloys containing 85 % by weight or more lead)	7(a)	-	(Under deliberation for exemption on renewal in EU) ²⁸
		② Used in electrical and electronic components 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)-I	-	
		③ Used less than 0.2% by weight in glass of fluorescent tubes	5(b)	-	
		④ Contained as an alloying element		-	
		(a) Used less than 0.35% by weight in steel alloy for machining purposes	6(a)-I	-	
		(b) Used less than 0.4% by weight in aluminium alloy for machining purposes	6(b)-II	-	
		(c) Used less than 4% by weight in copper alloy	6(c)	-	
		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 (a) A semiconductor technology node of 90 nm or larger (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	15(a)	-	
		⑥ Used in white glass used for an optical purpose	13(a)	-	
		⑦ Used in ion coloured optical filter glass types	13(b)-(I)	-	
		⑧ Used in glazes used for reflectance standards	13(b)-(III)	-	
	⑨ Used in dielectric ceramic used in a capacitor with rated voltage of 125V AC or 250V DC or larger	7(c)-II	-		
	⑩ Using exemptions listed in EU RoHS directive other than ① to ⑨ above and having permission from adoption decision	-	-	※ ³⁰	
	⑪ Batteries	-	In compliance with EU battery regulation	-	

³⁰ In principle, SHARP set up delivery prohibition date to SHARP as "six month" before the due date of EU RoHS exemption.

No.	Substance (Group)	Applications	RoHS Exemption	Criteria (Value)	Date of Abolition
3	Banned	① Stabilizers, pigments, and dyes used in plastics (including rubber) ② Pigments, paints, inks ③ Mercury batteries ④ Relays, switches, and sensors using mercury ⑤ All applications except those in the Declarable category	-	Content is 1,000 ppm or less.	Immediately
		⑥ Packaging materials, packaging components	-	See Table 2-2-4	
	Declarable	① Used in halogenated metal halide lamps (MH)	4(e)	-	24 Aug. 2026
		② Used in other discharge lamps for special purposes not specifically mentioned above	4(f)-I	-	(Under deliberation for exemption on renewal in EU) ³¹
		③ Mercury in high pressure mercury vapour lamps used in projectors where an output ≥ 2000 lumen ANSI is required	4(f)-II	-	24 Aug. 2026
		④ Mercury in lamps emitting light in the ultraviolet spectrum	4(f)-IV	-	
		⑤ Exempted applications specified under the EU RoHS Directive other than ① to ④ above, and permission obtained from the adopting department	-	-	
		⑥ Batteries	-	In compliance with EU battery regulation	-
4	Bis(2-ethylhexyl)phthalate (DEHP), dibutyl phthalate (DBP), butylbenzylphthalate (BBP), Diisobutyl phthalate (DIBP)				
	Banned	① Used 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". ② All 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".)	-	① Total content of 4 substances is 1000ppm or less. ② Content of DEHP, DBP, BBP and DIBP is 1000ppm or less respectively.	Immediately
	Declarable	① All applications except those in the Banned category	-		-

³¹ An application for extension of exemption was accepted in the EU, and it is under deliberation at the time of issuance of this standard manual. This exemption is valid during deliberation. When the deadline is decided, delivery prohibition date to SHARP will be six months before the deadline.

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

No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition	
5	Beryllium and its compounds	Banned	①Use of Beryllium oxide 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	-	-
6	Azo colorants and azo dyes	Banned	①Used 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.	- Not produce carcinogenic amine over 30ppm when decomposed.	Immediately
		Declarable	①All applications except those in the Banned category (used for parts not in continuous contact with the human body)	-	-
7	Polyvinyl chloride (PVC) and its copolymer	Banned	①Packaging materials/parts (for packaging Sharp products)	Not intentionally added.	Immediately
		Declarable	①All applications except those in the Banned category	-	-
8	Phthalate esters other than phthalates DEHP, DBP, BBP and DIBP (No.4 above)	Banned	①Diisononyl Phthalate: DINP, Diisodecyl phthalate: DIDP or Di-n-octyl phthalate: 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
		Declarable	①All applications except those in the Banned category	-	-
9	Radioactive substances	Banned	①All applications other than those in the Declarable category	Not intentionally added.	Immediately
		Declarable	①Thorium used in the magnetron of a microwave oven ②Krypton 85 used in the electric bulb of an LCD projector	-	-
10	Fluorinated greenhouse gases (HFC, PFC, SF6)	Banned	①All applications except those in the Declarable category	Not intentionally added.	Immediately
		Declarable	①Used as refrigerant and/or thermal insulator (HFC only) and meets the conditions and deadlines for each product and GWP (global warming potential) set in the EU F-gas regulation (2024/573)	-	-

No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition	
11	Formaldehyde	Banned	①Wooden parts 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.	①Atmospheric concentration of 0.1 ppm or less in an airtight test chamber having a volume of at least 10 m ³ (chamber method) ②According to the Japanese Act on Control of Household Products Containing Harmful Substances (75 ppm or less)	Immediately
		Declarable	①All applications except those in the Banned category	-	-
12	Perchlorates	Banned	①All applications to batteries except those in the Declarable category	Not intentionally added to batteries	Immediately
		Declarable	①Contained above 6ppb by weight per battery ②Contained less than 6ppb by weight per battery	-	-
13	Nickel and its compounds	Banned	①Applications with prolonged contact with human skin	Not intentionally added.	Immediately
		Declarable	①All applications except those in the Banned category	-	-
14	Arsenic and its compounds	Banned	①Use of Diarsenic Pentoxide ②All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	①Used in the lamp of LCD projector (Diarsenic trioxide) ②Exempted components* *Semiconductors, photosensitizers, magnet filters, copper foil, and batteries	-	-
15	Boric acid	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	-	-

No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition	
16	Disodium tetraborate, anhydrous; Tetraboron disodium heptaoxide, hydrate	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	-	-
17	Diocetyl tin (DOT) 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	-	-
18	Perfluorooctanoic 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. ³² (1) PFOA (including its salt): Content is 25ppb or less. (2) Combination of one or multiple PFOA-related substances: Total content is 1000ppb (1ppm) or less.	Immediately
		Declarable	①Photo-lithography processes for semiconductors or in etching processes for compound semiconductors. ②Photo coating used in printing plates, film, and documents. ③Exemptions listed in EU POPs regulation Annex I Part A other than above and having permission from adoption decision.	-	-
19	Chlorinated flame retardants	Banned	①All applications except those in the Declarable category	Content is 1,000 ppm or less. Not intentionally added.	-
		Declarable	①Difficult to substitute, and permission obtained from the adoption decision department within Sharp	-	-
20	Halogenated compound (Halogenated flame retardant etc.)	Banned	①Used in enclosure and stand of electronic displays including televisions, monitors and digital signage displays with a screen area over 100cm ² .	Total content of all halogen elements in the homogeneous material is 0.1wt% 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.	-	-

³² Total of the substances having these CAS RN[®]: 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.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition	
21	Tris (2-chloroethyl) phosphate (TCEP)	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	①Used in motor vehicles or replacement parts or replacement equipment for motor vehicles. ②Used in commercial or residential building insulation or wiring ③Used 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. ④Used in storage media, such as compact discs, for interactive software, such as computer games.	-	-
22	Tris (2-chloro-1-methylethyl) phosphate (TCPP)	Banned	①Products 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	-	-
23	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	①Used in motor vehicles or replacement parts or replacement equipment for motor vehicles. ②Used in commercial or residential building insulation or wiring ③Used 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. ④Used in storage media, such as compact discs, for interactive software, such as computer games.	-	-
24	Polycyclic aromatic hydrocarbons (PAHs) ³³	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	①All applications except those in the Banned category	-	-
25	Red phosphorus	Banned	① Resin or rubber	Content is 1,000 ppm or less. Not intentionally added.	Immediately
		Declarable	①All applications except those in the Banned category ② Falls under the category of Banned, but is difficult to substitute and permission obtained from the adoption decision department within Sharp	-	-

³³ Substances having these CAS RN[®].: 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
26	Isopropylphenyl phosphate (PIP(3:1))			
	Banned	①All applications except those in the Declarable category	Not intentionally added.	Immediately
	Declarable	①Used in lubricants or greases. ②Used 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. ③Using exemptions listed in USA TSCA SECTION 6 PBT-chemicals other than above and having permission from adoption decision.	-	-
	Declarable	①All applications except those in the Banned category	-	-
27	Hexachlorobutadiene (HCBD)			
	Banned	①All 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	-	-
28	2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP)			
	Banned	①All applications except those in the Declarable category	Not intentionally added.	Immediately
	Declarable	①Used in articles	-	-
29	4,4'-isopropylidenediphenol (Bisphenol A)			
	Banned	①Used in thermal paper	Used less than 0.02% by weight	Immediately
30	4,4'-sulfonyldiphenol (Bisphenol S)			
	Banned	①All applications except those in the Declarable category	Used less than 0.02% by weight	Immediately
	Declarable	①Used for other than thermal paper ②Used in thermal paper and used for products with a limited destination, having permission from adoption decision.	-	-
31	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)			
	Banned	①All applications except those in the Declarable category	Content is 1ppm (0.0001%) or less in the Mixture or Article.	Immediately
	Declarable	①Used in Tri-acetyl cellulose (TAC) film in polarizers and obtained permission from the adoption decision department within Sharp ②Used in parts for Motor vehicles, having permission from the adoption decision department within Sharp	-	-
32	Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances			
	Banned	①Used for applications below: (a) Textiles (b) Leather, Furs and Hides	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 0.000025% (25ppb) (2) The sum of PFHxA-related substances and their combinations: Content is less than 0.0001% (1000ppb).	Immediately
	Declarable	①All applications except those in the Banned category	-	-

No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition	
33	MOAH (Aromatic hydrocarbons of mineral oil comprising from 1 to 7 aromatic rings)	Banned	①All applications except those in the Declarable category	Total content in the ink is 0.1% or less for packaging ³⁴ and printing ³⁵ .	Immediately
		Declarable	Packaging for parts/materials that meet all of the following conditions - Not for delivery to France - Used for products with a limited destination other than France, having permission from adoption decision.		
			Packaging for parts/materials that meet all of the following conditions - Not for delivery to France - Clearly to be discarded at Sharp site outside France	-	-
34	MOAH (Aromatic hydrocarbons of mineral oil comprising from 3 to 7 aromatic rings)	Banned	①All applications except those in the Declarable category	Total content in the ink is 0.1% or less for packaging ³⁴ and printing ³⁵ .	Immediately
		Declarable	Packaging for parts/materials that meet all of the following conditions - Not for delivery to France - Used for products with a limited destination other than France, having permission from adoption decision.		
			Packaging for parts/materials that meet all of the following conditions - Not for delivery to France - Clearly to be discarded at Sharp site outside France	-	-
35	MOSH (Saturated hydrocarbons of mineral oil comprising from 16 to 35 carbon atoms)	Banned	①All applications except those in the Declarable category	Total content in the ink is 0.1% or less for packaging ³⁴ and printing ³⁵ .	Immediately
		Declarable	Packaging for parts/materials that meet all of the following conditions - Not for delivery to France - Used for products with a limited destination other than France, having permission from adoption decision.	-	-
			Packaging for parts/materials that meet all of the following conditions - Not for delivery to France - Clearly to be discarded at Sharp site outside France		

³⁴ Packaging refers to something that is used for transportation, protection, and packing of goods, and in principle they become unnecessary as soon as the product is used.

Printing on packaging and printed labels affixed to packaging are within the scope of the packaging.

[Examples of packaging materials] Cardboard paper, plastic bags, cushioning materials, protective films, adhesive tapes, staples, bands for securing loads, and labels, paints, and inks for them

³⁵ Prints not used or included together with Sharp products (such as delivery slip, Inspection report) are excluded.

Direct printing (such as logos) onto Sharp products are inapplicable to the printing written in this section.

(3) Candidate substances to be banned

Table 2-2-3: Criteria (Reference Values) of Candidate substances to be banned

No.	Substance (Group)	Applications	Criteria (Value)	Date of Abolition
1	1,2-Bis(2,3,4,5,6-pentabromophenyl)ethane (DBDPE)	①All uses	Not intentionally added.	Based on trends such as laws and regulations, Sharp will ban its use in the future. ³⁶
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), which is designated as a declarable substance in the latest version of chemSHERPA			
6	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) other than No.5 above			
7	Bisphenols (excluding Bisphenol A and Bisphenol S) ³⁷		Not intentionally added.	

³⁶ Depending on the timing when laws and regulations are finalized, it may not be possible to set a grace period from the designation as Sharp'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. Sharp Chemical Substance Management Categories in the "Manual for Survey of Chemical Substances Contained in Parts and Materials".

³⁷ Bisphenol A and bisphenol S are Substances Banned Depending on the Application (Table 2-1-2 and Table 2-2-2-2 No. 30, 31).

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

Categories	Applications	Criteria (Value)	Date of Abolition
Banned	①Materials and components for product packaging (cardboard, bags, cushioning materials, sheeting, tape, staples, binding bands, labels, cushions, paint, ink, etc.) ②Packaging 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
Declarable	①Packaging materials and components used for delivered parts and materials	-	-

3. List of main reference laws

Presence of banned substances in the product

Category	No.	Substances	Main reference laws etc.
RoHS-related chemical Substances	1	Hexavalent chromium compounds	EU RoHS directive, EU REACH regulation Annex XVII
	2	Polybrominated biphenyls (PBBs)	EU RoHS directive, EU REACH regulation Annex XVII
	3	Polybrominated diphenylethers (PBDEs)	Japan CSCL, EU RoHS directive, EU REACH regulation Annex XVII, USA TSCA, EU POPs regulation Annex I
Other	4	Tributyl Tin Oxide (TBTO)	Japan CSCL
	5	Tri-substituted organostannic compounds	Japan CSCL, EU REACH regulation Annex XVII
	6	Polychlorinated biphenyls (PCBs) and specific substitutes	Japan CSCL, EU POPs regulation Annex I
	7	Polychlorinated naphthalenes	Japan CSCL, EU POPs regulation Annex I
	8	Short-chain chlorinated paraffins (SCCPs) (C10–C13)	EU POPs regulation Annex I
	9	Asbestos	Japan Industrial Safety and Health Act, EU REACH regulation Annex XVII
	10	Polychlorinated Terphenyls (PCTs)	EU REACH regulation Annex XVII
	11	2-(2H-1,2,3-benzotriazol-2-yl)-4, 6-di-tert-butylphenol	Japan CSCL
	12	Hexabromocyclododecane (HBCDD) and all major diastereoisomers	Japan CSCL, EU POPs regulation
	13	Cobalt dichloride	(EU REACH regulation) ³⁸
	14	Dimethyl fumarate	EU REACH regulation Annex XVII
	15	Aluminosilicate, refractory ceramic fibers	(EU REACH regulation)
	16	Zirconia aluminosilicate, refractory ceramic fibers	(EU REACH regulation)
	17	Dibutyltin (DBT) compounds	EU REACH regulation Annex XVII
	18	Pentachlorothiophenol (PCTP)	USA TSCA
	19	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
	20	Perfluorohexane-1-sulphonic acid (PFHxS), its salts and PFHxS-related substances	Swiss Chemical Risk Reduction Ordinance, POPs Convention
	21	Perfluorooctane sulfonate (PFOS)	Japan CSCL, EU POPs regulation (Draft), Canadian Environmental Protection Act
	22	Dechlorane plus and its syn-isomer and anti-isomer	EU POPs regulation (Draft)
	23	Ozone-depleting substances	Montreal Protocol, USA Chlorofluorocarbon tax Regulation (EU) 2024/590

³⁸ "(EU REACH regulation)" means the substance which was listed in Authorisation List of SVHC.

Presence of banned substances depending on application

Category	No.	Substances	Main reference laws etc.
RoHS-related chemical Substances	1	Cadmium and its compounds	EU RoHS directive, EU REACH regulation Annex XVII
	2	Lead and its compounds	EU RoHS directive, EU REACH regulation Annex XVII, USA CPSIA
	3	Mercury and its compounds	EU RoHS directive, EU REACH regulation Annex XVII
	4	Bis(2-ethylhexyl)phthalate (DEHP), dibutyl phthalate (DBP), butylbenzylphthalate (BBP), Diisobutyl phthalate (DIBP)	EU RoHS directive (EU COMMISSION DELEGATED DIRECTIVE 2015/863), EU REACH regulation Annex XVII, USA CPSIA
Other	5	Beryllium and its compounds	<Sharp ban substance>
	6	Azo colorants and azo dyesthat	EU REACH regulation Annex XVII
	7	Polyvinyl chloride (PVC) and its copolymer	<Sharp ban substance>
	8	Phthalate esters other than phthalates DEHP, DBP, BBP and DIBP (listed No.4 above)	EU REACH regulation Annex XVII, USA CPSIA
	9	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
	10	Fluorinated greenhouse gases (HFC, PFC, SF6)	EU F-Gas Regulation (2024/573)
	11	Formaldehyde	Germany Chem Verbots V, Denmark formaldehyde regulations
	12	Perchlorates	USA CA Perchlorate management rules
	13	Nickel and its compounds	EU REACH regulation Annex XVII
	14	Arsenic and its compounds	(EU REACH regulation)
	15	Boric acid	(EU REACH regulation)
	16	Disodium tetraborate, anhydrous, Tetraboron disodium heptaoxide, hydrate	(EU REACH regulation)
	17	Diocetyl tin (DOT) compounds	EU REACH regulation Annex XVII
	18	Perfluorooctanoic acid (PFOA) and its salts and PFOA-related substances	EU POPs regulation
	19	Chlorinated flame retardants	<Sharp ban substance>
	20	Halogenated compound (Halogenated flame retardant etc.)	EU 2019/2021 (ecodesign requirements for electronic displays), USA Washington state law
	21	Tris(2-chloroethyl) phosphate (TCEP)	USA VT Act85, (EU REACH regulation)
	22	Tris(2-chloro-1-methylethyl) phosphate (TCPP)	USA VT Act85
	23	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	USA VT Act85
	24	Polycyclic aromatic hydrocarbons (PAHs)	EU REACH regulation Annex XVII
	25	Red phosphorus	<Sharp ban substance>
	26	Isopropylphenyl phosphate (PIP(3:1))	USA TSCA
	27	Hexachlorobutadiene (HCBD)	USA TSCA
	28	2,4,6-tris(tert-butyl) phenol (2,4,6-TTBP)	USA TSCA
	29	4,4'-isopropylidenediphenol (Bisphenol A)	EU REACH regulation AnnexXVII, Swiss Chemicals Ordinance, USA CT state law
	30	4,4'-sulfonyldiphenol (Bisphenol S)	Swiss Chemical Risk Reduction Ordinance
	31	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	POPs Convention (Draft)

Category	No.	Substances	Main reference laws etc.
Other	32	Perfluorohexanoic acid (PFHxA), its salts and PFHxA-related substances	EU REACH regulation Annex XVII (Draft)
	33	MOAH (Aromatic hydrocarbons of mineral oil comprising from 1 to 7 aromatic rings)	French decree
	34	MOAH (Aromatic hydrocarbons of mineral oil comprising from 3 to 7 aromatic rings)	French decree
	35	MOSH (Saturated hydrocarbons of mineral oil comprising from 16 to 35 carbon atoms)	French decree

Candidate substances to be banned

No.	Substances	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, CEPA 1999
5	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS), which is designated as a declarable substance in the latest version of chemSHERPA	US Specified State TIP
6	Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) other than No.5 above	
7	Bisphenols (excluding Bisphenol A and Bisphenol S)	Regulations in Europe, USA and Canada

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