

Panasonic Group

**Chemical Substances Management
Rank Guidelines**

Version 12 (For Products)

**Enforced on July 4, 2019
(Issued on June 4, 2019)**

Quality & Environment Division

Panasonic Corporation

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1. Objective of These Guidelines

The purpose of the "Chemical Substances Management Rank Guidelines (For Products)" is to ensure compliance with legislation and to reduce the environmental impact by clarifying the chemical substances that are prohibited and require special management if contained as environmentally impacting substances in products shipped by the Panasonic Group, or components, devices, materials, etc. delivered to the Panasonic Group, by thoroughly advising the Group's internal operations and suppliers of products, components, devices, and materials.

2. Application

2.1. Application to Products (Products shipped by the Panasonic Group)

- (1) Products designed, manufactured, and sold by the Panasonic Group
- (2) Products sold by the Panasonic Group with its trademark (including products outsourced to a third party by the Panasonic Group for design and manufacturing)
- (3) Products purchased by the Panasonic Group from another company and sold as system¹ products after assembly
- (4) Products contracted to the Panasonic Group from a third party for design and manufacturing (provided, however, that components, devices, materials, etc. specified by the third party are exempted from application of these Guidelines)
- (5) Products used for sales promotion (Products provided to parties outside Panasonic (not limited to general consumers): giveaways, etc.)
- (6) Packaging materials and packaging materials for transportation (pallets, shrink packs etc.).

2.2. Application to Components, Devices, Materials, etc. (Components, devices, materials, etc. delivered to the Panasonic Group)

This rule applies to the components, materials, and other items used for the products mentioned in Section 2.1 Application above.

- (1) Components/materials (including electrical components, mechanical components, electro-mechanical components, semiconductors, printed circuit boards, exterior components, and packaging materials/components for shipping products by the Panasonic Group)
- (2) Assembled components such as functional unit/module/board assemblies
- (3) Accessories (for using products such as remote controllers, and AC adaptors.)
- (4) Constituent materials such as auxiliary materials (e.g. tape, solder material, and adhesive.)
- (5) Operating instructions, warranty certificates, and other printed matters enclosed in products
- (6) Spare parts for repair
- (7) Components and materials for sales promotion (e.g. labels)
- (8) Packaging materials used for transport/protection by suppliers of components, devices, materials which directly contact the components, devices, and/or materials, and the target substance is highly likely to migrate and/or include in (Note that items do not directly contact the components, devices, and/or materials are not applicable).

3. Operations and Exemptions

- (1) Although these Guidelines have been developed in accordance with relevant main laws and regulations, they do not always cover all relevant regulations. Hence, all products shall fully comply with the treaties, laws, ordinances, industry guidelines, and other requirements effective at the time of sales and in the region of sales in addition to these Guidelines.
- (2) When Company/Business Division of the Panasonic Group uniquely sets out contents of these guidelines more stringent than the Regulations by the Panasonic Group in accordance with the Company/Business Division circumstances (e.g. requests by a customer), the company/BD shall inform the contents to relevant parties (e.g. suppliers).

¹ Aggregated products that are comprised of multiple types of products that perform a unified function

- (3) With respect to these Guidelines, items where application of these Guidelines may be exempted/postponed, items that require management separate from these Guidelines, and items that can be deemed out of scope of these Guidelines are separately prescribed in "Detailed Rules for Internal Operation of the Panasonic Group Chemical Substances Management Rank Guidelines (For Products)" (internal document). In the event such items are present, communicate to relevant parties (e.g. suppliers) as necessary.

4. Establishment, Revision, and Abolition

- (1) All items related to these Guidelines are examined by a Working Group consisting of representatives of experts from respective divisions of Companies under the Product Chemical Substance Management Committee, approved by the Product Chemical Substance Management Subcommittee, and finally approved by the Director of Quality & Environment Division.
- (2) In case a requirement arises for revision or abolishment of these Guidelines, a request shall be submitted to the Product Chemical Substance Management Subcommittee or the secretariat of the Product Chemical Substance Management Committee.
- (3) These Guidelines shall be discussed and reviewed periodically (once a year) by the Working Group. In the following cases, however, the secretariat will review and obtain approval from the Product Chemical Substance Management Subcommittee for revisions.
 - 1) When the need arises for reflecting a change in social trends such as law amendments
 - 2) When the need arises for reflecting a progress in technological trends (alternative technologies, assessment technologies), chemical hazard data, exposure data, and risk assessment data, etc.

5. Definition of Terms

The terms used in these Guidelines are defined as follows..

5.1. Panasonic Group

Refers to Panasonic Corporation and companies where Panasonic Corporation directly or indirectly owns more than its respective half of the voting rights.

5.2. Specified managed substance

Refers to Prohibited substances from Level 1 through 3 and managed substances that have been selected/approved based on the Selection Criteria of Prohibited Substances in the Chemical Substance Management Rank Guidelines.

5.3. Level 1 Prohibited Substances

The substances listed below and those that may be contained in products, components, devices, materials etc. specified in the scope of application are in this rank. Such substances must guarantee the Regulations by the Panasonic Group, and some must be discontinued immediately depending on the substance.

- (1) A substance contained in products that is prohibited by existing laws and regulations; or a substance where the upper limit of concentration is specified.
- (2) A substance that will be prohibited in products by laws and regulations or where the upper limit of concentration will be specified within one year of the enforcement of these Guidelines.

5.4. Level 2 Prohibited Substances

Any substance other than those specified as a Level 1 Prohibited Substance and shown below falls into this rank.

- (1) Substances that will be prohibited in products after a certain period by a treaty, law, or regulation.
- (2) Substances that are prohibited in products by the Panasonic Group prior to the effective period specified by a treaty, law, or regulation.
- (3) Substances whose use is voluntarily restricted by the Panasonic Group.

Any confirmed content of such substances in products must be remedied by means of an alternative based on the period or restricted condition specified by these Guidelines.

5.5. Level 3 Prohibited Substances

Any substance other than those specified as a Level 1 or Level 2 Prohibited Substance that is reviewed for prohibition by legislation etc., and the clarification of substitution-related issues as well as the timing for prohibition is reviewed by the Panasonic Group in light of future legislation trends. The timing of prohibition of content in products is not set by the Panasonic Group at present.

5.6. Managed Substances

This rank refers to substances whose consumption needs to be monitored and for which consideration needs to be given to human health, safety and hygiene, adequate treatment, etc. The intentional use of these substances is not restricted, but their use and contained concentration must be monitored. Of the applicable managed substances, when they are used "intentionally" or "inclusion is known," such substances need to be identified.

5.7. Inclusion is known

This refers to "information that has been received from the material manufacturer indicating that the raw material contains the managed substance" or "data indicating that content of the managed substances has been confirmed by some other means."

5.8. Contained in Products

Refers to all cases where the substances are contained in products, components, devices, materials, etc. For example, the following conditions are included.

- Condition in which the subject substance is intentionally used
- Condition in which the subject substance is contained as an impurity
- Condition in which the subject substance is used in the manufacturing process and remains on or attached to the finished product or its components or materials (for example, if a product risks being contaminated by a mold, tool, or machine that directly contacts the product during the manufacturing process, said part in contact with the product must not contain prohibited substances).

5.9. Intentional Use

Refers to intentionally using a certain substance during the process of manufacturing a product, component, device, material, etc. when continuous content is desirable for obtaining certain characteristics, appearance, or quality. Cases where the substance is ultimately not contained in the product, component, device, material, are excluded.

5.10. Impurity

A substance contained in natural materials which cannot be fully removed during the refining process, or is generated in a reaction process but cannot be removed technically.

5.11. Regulations by the Panasonic Group

Refers to contents that should be guaranteed by a business division in the Panasonic Group regarding the content of prohibited substances in products shipped from the Panasonic Group, and/or contents that should be guaranteed by the supplier of components, devices, materials, etc. delivered to the Panasonic Group.

5.12. Regulated Value

Concentration that should be guaranteed by a business division in the Panasonic Group regarding the content of prohibited substances in products shipped from the Panasonic Group, and/or contents that should be guaranteed by the supplier of components, devices, materials, etc. delivered to the Panasonic Group. Concentration includes impurity concentration.

5.13. Controlled Value

This refers to contained concentration for management by the Panasonic Group, which is deemed to not exceed the limit when the non-use control of Level 1 Prohibited Substances/Substance Groups is properly managed. If the contained concentration of the Prohibited substance exceeds the controlled value, request the supplier for clarification of the reason of content, and request the

supplier to reduce the contained concentration to below the controlled value as necessary. (Warranty for controlled value is not to be requested to suppliers).

5.14. Contained Concentration

Contained concentration refers to the concentration of the substance expressed by the mass of homogeneous material placed in the denominator position. Homogeneous material refers to the material that cannot be mechanically disassembled into different materials. Examples of homogeneous materials are as follows.

- Chemical compound, polymer alloy, metal alloy, etc.
- For raw materials such as paint, adhesive, ink, paste, resin polymer, glass powder, ceramic powder, etc., the final form of each presumed application (e.g., the dried or cured state for paints and adhesives, the molded state for resin polymers, and the fired state for glass and ceramic materials)
- Single layer of painted, printed, or plated surface. In the case of multiple layers, the condition of each single layer must be homogeneous material.

As for packaging material, however, the mass of the part/material comprising the packaging (the part that can be easily separated (e.g. "corrugated board" used for packing the product, "adhesive tape" used for assembly in a corrugated box package, and "label" used for indication are to be considered as separate materials) is to be the denominator, and the total concentration (by weight) of the four metals of lead, cadmium, mercury, and hexavalent chromium is to be the contained concentration.

5.15. Date of Delivery Prohibition

Refers to the date from which delivery of components, devices, materials, etc. from suppliers (including Panasonic Business Divisions) to the Panasonic Group is to be prohibited.

6. Specified Managed Substances

6.1. Level 1 Prohibited Substances

Level 1 Prohibited Substances have been determined in accordance with the following Japanese and foreign legislation (Table 1). Products shipped from the Panasonic Group, and components, devices, materials, etc. delivered to the Panasonic Group must guarantee the Regulations by the Panasonic Group shown in Table 1.

In addition, if the contained concentration exceeds the controlled value (the concentration deemed to not exceed the limit when the non-use control of Level 1 Prohibited Substances/Substance Groups is properly managed) specified in Appendix 3 "Controlled Values for Prohibited Substances," request the supplier to clarify the reason of content, and request reduction of the contained concentration to below the controlled value as necessary.

The content of Level 1 Prohibited Substances must guarantee the Regulations by the Panasonic Group, and must be in a state controlled to be less than the controlled value.

6.1.1. Legislation in Japan and items subject to the requirements

- Class I Specified Chemical Substances (Substances prohibited from manufacturing and importing) determined by the "Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Chemical Substances Control Law)" (hereinafter "CSCL")
- Specified Substances determined by the "Act on the Protection of the Ozone Layer through the Control and Other Measures on Specified Substances and Other Substances" (hereinafter "Ozone Layer Protection Act"). Substances subject to the obligation to control contained substances and submit information as determined by the "Act on the Promotion of Effective Utilization of Resources" (hereinafter "3R Law")

6.1.2. Legislation outside Japan, international treaties, and items subject to the requirements

- EU RoHS Directive (Directive 2011/65/EU): Directive 2011/65/EU of the European

- Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment (hereinafter "**EU RoHS**")
- EU REACH (Regulation (EC) No. 1907/2006): Annex XVII (Restrictions) of the Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (hereinafter "**EU REACH Annex XVII**")
 - EU POPs Regulation (Regulation (EC) No. 850/2004): Annex I of the Regulation (EC) No 850/2004 of the European Parliament and of the Council on persistent organic pollutants (hereinafter "**EU POPs Annex I**")
 - EU Packaging Directive (Directive 94/62/EC): European Parliament and Council Directive on packaging and packaging waste (hereinafter "**EU Packaging Directive**")
 - EU Ozone Depletion Substance (ODS) Regulation (Regulation (EC) No 1005/2009): Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer (recast) (hereinafter "**EU ODS**")
 - "Germany Chemicals prohibition ordinance" (hereinafter "**DE ChemVerbotsV**")
 - "Denmark Formaldehyde Regulation (No. 289, 22 June 1983)" (hereinafter "**DK Formaldehyde Regulation**")
 - "Specified states in the US: Toxics in Packaging Regulation" (hereinafter "**US Specified States TIP**")
 - "The Montreal Protocol on Substances that Deplete the Ozone Layer" (hereinafter "**Montreal Protocol**")
 - "Environmental Taxes on Ozone-depleting chemicals (ODCs); 26 CFR 52.4682-1-3" (hereinafter "**US CFC tax**")
 - "The Clean Air Act; Title VI - Stratospheric Ozone Protection" (hereinafter "**US CAA**")
 - "Stockholm Convention on Persistent Organic Pollutants" (hereinafter "**POPs Convention**")
 - "Canadian Environmental Protection Act", 1999 (hereinafter "**CEPA 1999**")
 - "US Toxic Substances Control Act" (hereinafter "**TSCA**")
 - "Minamata Convention on Mercury" (hereinafter "Minamata Convention")

Table 1 List of Level 1 Prohibited Substances/Substance Groups

It is required to guarantee the Regulations by the Panasonic Group below.*1

Note 1: For the analysis of the major substances, follow IEC 62321 (excluding the older version IEC 62321:2008)*2

Note 2: Any substances not included in this list must also be fully compliant if applicable regions or products are individually designated by a treaty, law, ordinance, industry guidelines, etc.

No.	Substance/Substance Group Name	Regulations by the Panasonic Group	Major Referenced Laws/ Regulations
1	Polychlorinated biphenyls (PCBs) (see Table 2- 1)	Intentional use prohibited and concentration must be less than 50ppm*3	CSCL, POPs Convention EU POPs Annex I
	Polychlorinated terphenyls (PCTs) (see Table 2- 2)	Must be less than 50ppm*3	EU REACH Annex XVII
2	Asbestos (see Table 2- 3)	Intentional use prohibited Content of this substance, including unintentional contamination/adhesion from concurrent production or from manufacturing equipment, is prohibited	EU REACH Annex XVII
3	Specific organic tin compounds (1) Bis (tributyltin) oxide Tri-substituted organostannic compounds (see Table 2- 4)	Tin concentration*4 must be less than 1000ppm*3	CSCL, EU REACH Annex XVII
4	Specific organic tin compounds (2) Dibutyltin compounds (see Table 2- 5)	Tin concentration*4 must be less than 1000ppm*3*5	EU REACH Annex XVII
5	Specific organic tin compounds (3) Dioctyltin compounds (see Table 2- 6)	Tin concentration*4 must be less than 1000ppm*3 (The regulation scope is limited)	EU REACH Annex XVII
6	Short-chain chlorinated paraffin (SCCPs, C10–13) (see Table 2- 7)	Intentional use prohibited and concentration must be less than 1500ppm if contained as an impurity of medium-chain chlorinated paraffin (MCCP, C14-17)*3	EU POPs Annex I POPs Convention CSCL
7	Specified brominated flame-retardants (PBBs, PBDEs) (see Table 2- 8)	Concentration must be less than 1000ppm*6	CSCL, EU RoHS, EU REACH Annex XVII, EU POPs Annex I

8	Azo dye and pigment forming specified amines (see Table 2- 9)	Concentration must be less than 30mg/kg (30ppm) (as specified amine) ^{*3} (The regulation scope is limited)	EU REACH Annex XVII
9	Polychlorinated naphthalene (1 or more chlorine atoms) (see Table 2- 10)	Intentional use prohibited ^{*3}	EU POPs Annex I, CSCL, POPs Convention
10	Cadmium and its compounds (see Table 2- 11)	Concentration must be less than 100ppm (Exemptions are provided.)	3R Law, EU RoHS, EU REACH Annex XVII
11	Lead and its compounds (see Table 2- 12)	Concentration must be less than 1000ppm (Exemptions are provided.)	3R Law, EU RoHS, EU REACH Annex XVII
12	Hexavalent chromium compounds (see Table 2- 13)	- Concentration of leather products and leather components must be less than 3ppm ^{*7} - Concentration of items other than the above must be less than 1000ppm (Exemptions are provided.)	3R Law, EU RoHS, EU REACH Annex XVII
13	Mercury and its compounds (see Table 2- 14)	Concentration must be less than 1000ppm (Exemptions are provided.)	3R Law, EU RoHS Minamata Convention
-	* No. 10 – 13 Four heavy metals (Cadmium, Lead, Hexavalent chromium, and Mercury) (see Table 2- 15)	Intentional use prohibited and concentration must be less than 100ppm ^{*8} in total with the mass of the materials constituting the packaging as the denominator (Regulated scope is packaging)	EU Packaging Directive, US Specified States TIP
14	Ozone-depleting substances (excluding HCFC) (see Table 2- 16)	Intentional use prohibited ^{*9}	Ozone Layer Protection Act, Montreal Protocol, US CFC tax
15	Hydrochlorofluorocarbons (HCFC) (see Table 2- 17)	Intentional use prohibited ^{*3}	EU ODS, US CAA Ozone Layer Protection Act
16	Formaldehyde (see Table 2- 18)	Aerial concentration must be less than 0.1ppm (DE ChemVerbotsV) ^{*10} Aerial concentration must be less than 0.15mg/m ³ (DK Formaldehyde Regulation) ^{*10} (The regulation scope is limited)	DE ChemVerbotsV, DK Formaldehyde Regulation US TSCA

17	Perfluorooctane sulfonate (PFOS) and its salts (see Table 2- 19)	Intentional use prohibited and must be - less than 1000ppm for semifinished goods, articles, and parts* ³ - less than 1µg/m ² for surface treatment* ³ (Exemptions are provided.)	EU POPs Annex I CSCL, POPs Convention
18	Specified benzotriazole 2-(2H-1,2,3-benzotriazole-2-il)-4,6-di-tert-butylphenol (see Table 2- 20)	Intentional use prohibited* ³	CSCL
19	Dimethylfumarate (see Table 2- 21)	Concentration must be less than 0.1ppm* ³	EU REACH Annex XVII
20	Polycyclic aromatic hydrocarbons (PAH) (see Table 2- 22)	Concentration must be less than 1ppm* ³ (The regulation scope is limited)	EU REACH Annex XVII
21	Hexabromocyclododecane (HBCD) (see Table 2- 23)	Intentional use prohibited and must be less than 100ppm* ³	EU POPs Annex I, CSCL, POPs Convention
22	Four phthalates - Bis(2-ethylhexyl) phthalate (DEHP) - Benzyl butyl phthalate (BBP) - Dibutyl phthalate (DBP) - Diisobutyl phthalate (DIBP) (see Table 2- 24)	Concentration of one of the phthalates must be less than 1000ppm	EU RoHS
-	Four phthalates - Bis(2-ethylhexyl) phthalate (DEHP) - Benzyl butyl phthalate (BBP) - Dibutyl phthalate (DBP) - Diisobutyl phthalate (DIBP) (see Table 2- 24)	Other than the equipment covered under the EU RoHS Concentration of the four phthalate must be less than 1000ppm in total of the four phthalates	EU REACH Annex XVII
23	Three chlorinated phosphate ester flame retardants - Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) - Tris(2-chloroethyl) phosphate (TCEP) - Tris (chloroisopropyl) phosphate (TCPP) (see Table 2- 25)	Concentration must be less than 1000ppm* ³	US national law (including local government law)

24	Hydrofluorocarbon (HFC) (see Table 2- 26)	Ban on intentional use ^{*3} (The regulation scope is limited)	Canadian Environmental Protection Act
25	Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances (see Table 2- 27)	-In the case of PFOA (including individual salts), concentration must be less than 25ppb (0.025ppm) ^{*3} -In the case of combination of one or multiple PFOA-related substances, concentration must be less than 1000ppb (1ppm) in total of the PFOA, its salts and PFOA-related substances. ^{*3}	EU REACH Annex XVII

- *1: Spare parts should be in compliance with applicable legislation, as well as handled in accordance with the contents of management for Level 1 Prohibited Substances in the product main body of electric/electronic equipment to which the spare parts are applied.
- *2: The original text for IEC 62321 (Determination of certain substances in electrotechnical products) is available from, for example, the IEC Web Store (<https://webstore.iec.ch/>)
- *3: If compliance with the Regulations by the Panasonic Group is verified by tracing back the supply chain, the analysis for checking non-use of the subject substance is not required.
- *4: Tin concentration = (The specific organic tin compound concentration in a homogeneous material) x (Tin conversion coefficient)

$$\text{Tin conversion coefficient} = \frac{118.7^{*A} \times N^{*B}}{[\text{Molecular weight of a specified organic tin compound}]}$$

*A: Tin atomic weight, *B: Number of tin atoms in tin compounds

See Appendix 1 for tin conversion coefficients of the main specific organic tin compounds.

- *5: If a dibutyltin compound is intentionally used with a concentration of less than 1000ppm, we may request the supplier for the submission of evidence (e.g. analysis data) required for guaranteeing that the concentration is less than the regulated value of 1000ppm.
- *6: The regulated value 1000ppm indicates the concentration of each substance group of PBB and PBDE.
- *7: Hexavalent chromium with the total dry weight of leather products or leather components must be less than 3ppm by weight. For chrome tanned (including trivalent chromium tanned) leather products and leather components, conduct analysis and confirm that the content rate of hexavalent chromium is less than 3ppm. On the other hand, for leather products and leather components not processed with chrome tanning, trace back the supply chain and confirm that the content rate of hexavalent chromium is less than 3ppm; if confirmed, analysis of this substance is unnecessary.
- *8: Content of four heavy metals (lead, cadmium, mercury, and hexavalent chromium) in total with the mass of materials constructing the packaging must be less than 100ppm by weight. Materials constructing the packaging are parts which can be easily separated (e.g. "corrugated board" in a corrugated board package and "adhesive tape" used for assembly, and "label" for displaying are to be considered as different materials.)
- *9: In the latest Green Procurement Standards, use of ozone-depleting substances in production processes (which refers to the use of the relevant substances, even if they are not contained in products or components, including the intentional use of such substances during manufacturing products or components (e.g. in the washing process)) is prohibited.
- *10: Test methods shall comply with individual laws.

Table 2 Regulated Items of Level 1 Prohibited Substances

Table 2- 1

Substance/Substance Group Name: Polychlorinated biphenyls (PCBs)
Regulated items
All applications [Applications and use examples] Insulation oil, lubricant oil, electric insulator, solvent, electrolyte, plasticizer, fire-retardant, flame retardant, coating agent for electric wires and cables, dielectric sealant

Table 2- 2

Substance/Substance Group Name: Polychlorinated terphenyls (PCTs)
Regulated items
All applications [Applications and use examples] Insulation oil, lubricant oil, electric insulator, solvent, electrolyte, plasticizer, fire-retardant, flame retardant, coating agent for electric wires and cables, dielectric sealant

Table 2- 3

Substance/Substance Group Name: Asbestos
Regulated items
All applications [Applications and use examples] Brake lining pad, gasket (sealing material), insulator, filler, abrasive, pigment, paint, talc, thermal insulator

Table 2- 4

Substance/Substance Group Name: Specific organic tin compounds (1) Bis (tributyltin) oxide, tri-substituted organostannic compounds
Regulated items
All applications [Applications and use examples] Bis (tributyltin) oxide: Paint, pigment, preservative Tri-substituted organostannic compounds: Paint, pigment, stabilizer

Table 2- 5

Substance/Substance Group Name: Specific organic tin compounds (2) Dibutyltin (DBT) compounds
Regulated items
All applications [Applications and use examples] Resin stabilizers, hardening catalysts for polyurethane or silicone, coating agents for glass, , rubber modifier agents

Table 2- 6

Substance/Substance Group Name: Specific organic tin compounds (3) Diocetyl tin (DOT) compounds
Regulated items
The following applications: <ul style="list-style-type: none"> – Textile articles intended to come into contact with the skin – Wall and floor coverings – Two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)

Table 2- 7

Substance/Substance Group Name: Short- chain chlorinated paraffins (SCCPs)
Regulated items
All applications [Applications and use examples] Plasticizer for polyvinyl chloride (PVC), flame retardant

Table 2- 8

Substance/Substance Group Name: Specified Brominated Flame-retardant (PBB, PBDE) (All PBBs and PBDEs including Deca BDE (deca-bromo-diphenyl-ether))
Regulated items
All applications

Table 2- 9

Substance/Substance Group Name: Azo dye and pigment forming specified amines		
Regulated items		
Textiles and leather products that may have direct contact with human skin and/or oral cavities for an extended period of time		
Examples: Clothing, bedding, towels, hairpieces, wigs, caps, and other hygiene items, sleeping bags, footwear, gloves, wristwatch bands, earphones, headphones, straps, shoulder belts, etc.		
The specified amines that must not be generated by reductive decomposition of Azo dye and pigment are listed below. (EU REACH Regulation Annex XVII Ref. Appendix 8 Entry 43 - Azocolourants - List of aromatic amines)		
Specified amines that must not be generated		
	CAS RN [®]	Substances
1	92-67-1	biphenyl-4-ylamine 4-aminodiphenyl xenylamine
2	92-87-5	Benzidine
3	95-69-2	4-chloro-o-toluidine
4	91-59-8	2-naphthylamine
5	97-56-3	o-aminoazotoluene 4-amino-2',3-dimethylazobenzene 4-o-tolylazo-o-toluidine
6	99-55-8	5-nitro-o-toluidine
7	106-47-8	4-chloroaniline
8	615-05-4	4-methoxy-m-phenylenediamine
9	101-77-9	4,4'-methylenedianiline 4,4'-diaminodiphenylmethane
10	91-94-1	3,3'-dichlorobenzidine 3,3'-dichlorobiphenyl-4,4'-ylenediamine
11	119-90-4	3,3'-dimethoxybenzidine o-dianisidine
12	119-93-7	3,3'-dimethylbenzidine 4,4'-bi-o-toluidine
13	838-88-0	4,4'-methylenedi-o-toluidine
14	120-71-8	6-methoxy-m-toluidine p-cresidine
15	101-14-4	4,4'-methylene-bis-(2-chloro-aniline) 2,2'-dichloro-4,4'-methylene-dianiline
16	101-80-4	4,4'-oxydianiline
17	139-65-1	4,4'-thiodianiline
18	95-53-4	o-toluidine 2-aminotoluene
19	95-80-7	4-methyl-m-phenylenediamine (2,4-toluenediamine)
20	137-17-7	2,4,5-trimethylaniline
21	90-04-0	o-anisidine 2-methoxyaniline
22	60-09-3	4-amino azobenzene

Table 2- 10

Substance/Substance Group Name: Polychlorinated naphthalene (1 or more chlorine atoms)
Regulated items
All applications
[Applications and use examples] Lubricant, paint, stabilizer (electric property, flame-proof property, water-proof property) insulator, flame retardant

Table 2- 11

Substance/Substance Group Name: Cadmium and its compounds	
Regulated items	
All applications except those in the exemptions shown below. (See Table 2- 15 for packaging material.)	
[Applications and use examples] Stabilizer/pigment/dye/paint/ink used for plastics (including rubber, film), phosphor, alloy, packaging materials, etc.	
Exemptions	<ul style="list-style-type: none"> – Items listed in Appendix 2 "Exempted Items List" – Uses in batteries^{*1*2} (under the EU Battery Directive)

*1: Batteries (primary batteries), accumulators (secondary batteries), and battery packs

*2: Confirm the legislation individually when handling batteries.

Table 2- 12

Substance/Substance Group Name: Lead and its compounds	
Regulated items ^{*1}	
All applications except those in the exemptions shown below. (See Table 2- 15 for packaging.)	
[Applications and use examples] Paint, pigment, dye, ink, stabilizer in plastic (including rubber) material Solder coating on and packaging material of component external electrode, lead terminal, etc.	
Exemptions	<ul style="list-style-type: none"> – Items listed in Appendix 2 "Exempted Items List" – Uses in batteries^{*2*3} (under the EU Battery Directive)

*1: For products destined for in North America subject to the California Proposition 65 Settlement Agreement dated September 3, 2002, if lead is intentional added to the surface material covering the cord, or its lead content exceeds 300ppm (0.03%), a warning label is required.

*2: Batteries (primary batteries), accumulators (secondary batteries), and battery packs

*3: Confirm the legislation individually when handling batteries

Table 2- 13

Substance/Substance Group Name: Hexavalent chromium compounds	
Regulated items	
(1) Leather products and leather components that have contact with the skin (2) Other than the above: All applications except those in the exemptions shown below. (See Table 2- 15 for packaging materials.)	
[Applications and use examples] Rust-proof treatment, plastics, paint, pigment, ink, packaging materials, leather (e.g. exterior parts of products, leather parts of carrying cases) etc.	
Exemptions	<ul style="list-style-type: none"> – Items listed Appendix 2 "Exempted Items List" – Uses in batteries ^{*1*2} (under the EU Battery Directive)

*1: Batteries (primary batteries), accumulators (secondary batteries), and battery packs

*2: Confirm the legislation individually when handling batteries

Table 2- 14

Substance/Substance Group Name: Mercury and its compounds	
Regulated items	
All applications except those shown in the exemptions. (See Table 2- 15 for packaging.)	
[Applications and use examples] Pigment, dye, paint, ink, indicator such as hour meter, relay, switch, sensor where mercury is used for electrical contact, harmonizer in plastics, packaging material, etc.	
Exemptions	<ul style="list-style-type: none"> – Items listed Appendix 2 "Exempted Items List" – Uses in batteries ^{*1*2} excluding mercury batteries (under the EU Battery Directive)

*1: Batteries (primary batteries), accumulators (secondary batteries), and battery packs

*2: Confirm the legislation individually when handling batteries

Table 2- 15

Substance/Substance Group Name: Four heavy metals (Cadmium, Lead, Hexavalent chromium, Mercury)	
Regulated items	
All uses in packaging other than listed in the exempted items	
[Applications and use examples] Pigment, dye, paint, ink, packing material, adhesive agent, staple, label	
Exemptions	Case that reuse of the substance in a closed loop such as palletes is clearly stated. ^{*1}

*1: When a packaging material with a total content of four heavy metals exceeding 100ppm is reused in a closed loop, confirm and handle each case individually since notification obligation etc. may be posed by the US Specified States Toxics in Packaging Regulation.

Table 2- 16

Substance/Substance Group Name: Ozone-depleting substances (excluding HCFC)	
Regulated items	
All applications	
[Applications and use examples] Refrigerant, foaming agent, mounted substrate cleaner, etc.	

Table 2- 17

Substance/Substance Group Name: Hydrochlorofluorocarbons (HCFC)	
Regulated items	
All applications* ¹	
[Applications and use examples] Refrigerant, foaming agent, mounted substrate cleaner, etc.	

*1: Developing countries to which Article 5 of The Montreal Protocol "Special situation of developing countries" apply shall be handled taking into account technical and economic feasibility.

Table 2- 18

Substance/Substance Group Name: Formaldehyde	
Regulated items * ¹ * ²	
Wood products and parts using materials such as particle boards and MDF (medium density fiberboard). The products and parts above shall satisfy the following conditions (E.g. Speaker box, rack). – Less than the regulated values of Table 1 shall be met, not banning intentional use. However, for products destined for regions other than those regulated by law, the application of less than 0.5 mg/L (JIS: desiccator method) may also be possible. The regulated values in building products and housing equipment shall be determined by the applicable Company or Business Division.	

*1: Products sold in North America subject to the California Composite Wood Products ATCM for Formaldehyde must comply with this regulation.

*2: For formaldehyde content in fiber, products sold in Europe subject to the Austria regulates (Austria - BGB I 1990/194: Formaldehydverordnung, regulated amount = 75ppm) must comply with this regulation.

Table 2- 19

Substance/Substance Group Name: Perfluorooctane sulfonate (PFOS) and its salts Molecular formula C ₈ F ₁₇ SO ₂ X (X = other derivatives including OH, metallic salts, halogen compounds, amides, or polymers)	
Regulated items	
All applications other than those shown in the Exemptions below	
Exemptions	– Photoresist for photolithography processes or Photographic coatings applied to films, papers, or printing plates

Table 2- 20

Substance/Substance Group Name: Specified benzotriazole (2- (2H-1,2,3-benzotriazole-2-yl) -4, 6-di-tert-butylphenol)
Regulated items
All applications [Applications and use examples] UV absorption agent for plastic resin, plastic building materials, coating resin for photos with sublimation transfer printing

Table 2- 21

Substance/Substance Group Name: Dimethylfumarate (DMF)
Regulated items
All applications [Applications and use examples] Moisture-proof agent, mold-proof agent

Table 2- 22

Substance/Substance Group Name: Polycyclic aromatic hydrocarbons (PAH)																											
Regulated Items																											
Rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity. Examples: Sport equipment such as bicycles, golf clubs, racquets, household utensils, trolleys, walking frames, tools for domestic use, clothing, footwear, gloves and sportswear, watch-straps, wrist-bands, masks, head-bands etc.																											
Covered substances																											
<table border="1"> <thead> <tr> <th></th> <th>CAS RN®</th> <th>Substances</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>50-32-8</td> <td>Benzo[a]pyrene (BaP)</td> </tr> <tr> <td>2</td> <td>192-97-2</td> <td>Benzo[e]pyrene (BeP)</td> </tr> <tr> <td>3</td> <td>56-55-3</td> <td>Benzo[a]anthracene (BaA)</td> </tr> <tr> <td>4</td> <td>218-01-9</td> <td>Chrysen (CHR)</td> </tr> <tr> <td>5</td> <td>205-99-2</td> <td>Benzo[b]fluoranthene (BbFA)</td> </tr> <tr> <td>6</td> <td>205-82-3</td> <td>Benzo[j]fluoranthene (BjFA)</td> </tr> <tr> <td>7</td> <td>207-08-9</td> <td>Benzo[k]fluoranthene (BkFA)</td> </tr> <tr> <td>8</td> <td>53-70-3</td> <td>Dibenzo [a, h] anthracene (DBAhA)</td> </tr> </tbody> </table>		CAS RN®	Substances	1	50-32-8	Benzo[a]pyrene (BaP)	2	192-97-2	Benzo[e]pyrene (BeP)	3	56-55-3	Benzo[a]anthracene (BaA)	4	218-01-9	Chrysen (CHR)	5	205-99-2	Benzo[b]fluoranthene (BbFA)	6	205-82-3	Benzo[j]fluoranthene (BjFA)	7	207-08-9	Benzo[k]fluoranthene (BkFA)	8	53-70-3	Dibenzo [a, h] anthracene (DBAhA)
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8	53-70-3	Dibenzo [a, h] anthracene (DBAhA)																									

Table 2- 23

Substance/Substance Group Name: Hexabromocyclododecane (HBCD)
Regulated items
All applications [Applications and use examples] Flame retardant

Table 2- 24

Substance/Substance Group Name: Four phthalates Bis(2-ethylhexyl) phthalate (DEHP* ¹) Benzyl butyl phthalate (BBP) Dibutyl phthalate (DBP) Diisobutyl phthalate (DIBP)
Regulated items
Products, components, and devices covered under the EU RoHS Directives must not include 1,000ppm or more per one phthalate. Products covered under the EU REACH Annex XVII Restriction on phthalates (e.g. Materials for batteries* ² , Packaging materials* ³ , and Toys & childcare articles) must not include the phthalates 1,000ppm or more in total of the four phthalates. [Applications and use examples] Plasticizer for rubber, elastomer, and resin (particularly polyvinyl chloride) Additive for paint, ink, and adhesives

*1: DEHP is often called as DOP, particularly by material manufacturers; therefore, particular attention must be paid to the indication of 'DOP'.

*2: Batteries (primary batteries), storage batteries (secondary batteries), and battery packs

*3: Note that the four phthalates in the packaging materials are restricted in total concentration under EU REACH.

Table 2- 25

Substance/Substance Group Name: Three chlorinated phosphate ester flame retardants Tris(1,3-dichloro-2-propyl)phosphate (TDCPP) Tris(2-chloroethyl)phosphate (TCEP) Tris (chloroisopropyl) phosphate (TCPP)
Regulated items
All applications other than those shown in the Exemptions below [Applications and use examples] Flame retardant
Exemptions
<ul style="list-style-type: none"> – Motor vehicles or replacement parts or replacement equipment for motor vehicles; – 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; – 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 – Storage media, such as compact discs, for interactive software, such as computer games.

Table 2- 26

Substance/Substance Group Name: Hydrofluorocarbon (HFC)	
Regulated items	
<p>Products include HFC indicated in Attached table 1, 6.1.3 (Exemption: Household air conditioner and Household heat pump) Each product is restricted by HFC global warming potential (GWP) per use.</p> <p>[Applications and use examples]</p> <ul style="list-style-type: none"> - Stand-alone refrigerator and Centralized refrigeration equipment, - Chiller, Mobile refrigeration equipment, and household refrigerator - Extruded polystyrene form, Rigid polystyrene form, Polystyrene high pressure form spray, and pressure form spray, and Polystyrene low pressure form spray which were manufactured using HFC, - Automobile air conditioner - Aerosol 	

Table 2- 27

Substance/Substance Group Name: Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	
Regulated items	
<p>All products include Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances indicated in Attached table 2, 6.1.3, except use exemption.</p> <p>[Applications and use examples]</p> <p>Fluororesin/Fluororubber, Fluororesin coating, and antireflection agent in semiconductor exposure process</p>	
Exemptions	- Use for semiconductor in the photo lithography process, or use for compound semiconductor in etching process, and semiconductor and compound semiconductor made of the aforementioned processes.

6.1.3. Attached table

Attached table 1. Hydrofluorocarbon (HFC) *1

	CAS RN®	Substance Name	Another name
1	75-46-7	Trifluoromethane	HFC-23
2	75-10-5	Difluoromethane	HFC-32
3	593-53-3	Methyl fluoride	HFC-41
4	354-33-6	Ethane, 1,1,1,2,2-pentafluoro-	HFC-125
5	359-35-3	1,1,2,2-Tetrafluoroethane	HFC-134
6	811-97-2	1,1,1,2-Tetrafluoroethane	HFC-134a
7	430-66-0	1,1,2-Trifluoroethane	HFC-143
8	420-46-2	Ethane, 1,1,1-trifluoro-	HFC-143a
9	624-72-6	1,2-Difluoroethane	HFC-152
10	75-37-6	1,1-Difluoroethane	HFC-152a
11	431-89-0	Propane, 1,1,1,2,3,3,3-heptafluoro-	HFC-227ea
12	677-56-5	1,1,1,2,2,3-Hexafluoro-propane	HFC-236cb
13	431-63-0	1,1,1,2,3,3-Hexafluoropropane	HFC-236ea
14	690-39-1	Propane, 1,1,1,3,3,3-hexafluoro-	HFC-236fa
15	679-86-7	1,1,2,2,3-Pentafluoropropane	HFC-245ca
16	460-73-1	1,1,1,3,3-Pentafluoropropane	HFC-245fa
17	406-58-6	1,1,1,3,3-Pentafluorobutane	HFC-365mfc
18	138495-42-8	Pentane, 1,1,1,2,3,4,4,5,5,5-decafluoro-	HFC-43-10mee

*1 : HFC which is covered under the Canadian Environmental Protection Act, 1999

Attached table 2. Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances

	CAS RN®	Substance Name in English
1	335-67-1	Perfluorooctanoic acid (PFOA)
2	335-66-0	Pentadecafluorooctyl fluoride
3	335-93-3	Silver salt of PFOA
4	335-95-5	Sodium salt of PFOA
5	376-27-2	Methylperfluorooctanoate
6	507-63-1	C8 iodide: (Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-8-iodo-)
7	678-39-7	8-2 telomer alcohol:
8	678-41-1	Polyfluoroalkyl phosphoric acid diesters; 8:2 Fluorotelomer phosphate diester; 8:2 diPAP
9	1996-88-9	8:2 Fluorotelomer methacrylate; 8:2 FTMAC
10	2043-53-0	2-(perfluorooctyl)ethyl iodide, 8-2 telomer iodide:
11	3102-79-2	Polyfluorinated silanes; Perfluorodecylchloromethylsilane; C8-PFSi
12	3108-24-5	Ethylperfluorooctanoate
13	21652-58-4	8:2 Fluorotelomer olefin; 8:2 FTO
14	2395-00-8	Potassium salt of PFOA
15	24216-05-5	3,4-bis[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]benzenesulphonyl chloride;3,4-Bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctylamino)benzenesulfonyl chloride
16	27854-31-5	Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
17	27905-45-9	Fluorotelomer acrylates; 8:2 Fluorotelomer acrylate; 8:2 FTAC
18	33496-48-9	Pentadecafluorooctanoic anhydride
19	3825-26-1	Ammoniumpentadecafluorooctanoate
20	39186-68-0	2-carboxyethylbis(2-hydroxyethyl)-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]propylammonium hydroxide
21	40143-78-0	Per- and polyfluorinated phosphonic acids; Perfluorooctyl phosphonic acid; C8-PFPA
22	40143-79-1	Bis(perfluorooctyl) phosphinic acid; C8/C8-PFPIA
23	41358-63-8	N-[3-[bis(2-hydroxyethyl)amino]propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanamide
24	53515-73-4	2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester, polymer with 2-propenoic acid
25	53517-98-9	1-Propanaminium,N,N,N-trimethyl-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, chloride
26	57678-03-2	8:2 Fluorotelomer phosphate monoester; 8:2 monoPAP
27	65530-57-6	Poly(difluoromethylene), alpha-fluoro-omega-[2- [[2-(trimethylammonio)ethyl]thio]ethyl]-, methyl sulfate
28	65530-61-2	Poly(difluoromethylene), .alpha.-fluoro-.omega.-2-(phosphonooxy)ethyl-
29	65530-62-3	Poly(difluoromethylene), .alpha.,.alpha.-phosphinicobis(oxy-2,1-ethanediyl)bis.omega.-fluoro-
30	68141-02-6	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+)
31	68333-92-6	Fatty acids, C7-13, perfluoro
32	69278-80-4	Fatty acids, C7-13, perfluoro, compds. with ethylamine
33	70887-84-2	2-Decenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hexadecafluoro-
34	71608-61-2	Pentanoic acid, 4,4-bis(.gamma.-.omega.-perfluoro-C8-20-alkyl)thio derivs., compds. with diethanolamine; 4,4-Bis[(gamma-omega-perfluoro-alkyl(C=8-20))thio]pentanoic acid derivs. compds. with diethanolamine
35	72623-77-9	Fatty acids, C6-18, perfluoro, ammonium salts
36	72968-38-8	Carboxylic acids, C7-13, perfluoro, ammonium salts
37	74612-30-9	Perfluorodecyltrimethylchlorosilane
38	78560-44-8	Perfluorodecyltrichlorosilane

39	80010-37-3	Poly(difluoromethylene), .alpha.-fluoro-.omega.-(2-sulfoethyl)-
40	83048-65-1	Heptadecafluoro-1,1,2,2-tetrahydrodecyl) trimethoxysilane
41	84029-60-7	heptadecafluoro-1-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)oxy]nonene
42	85938-56-3	N-(3-aminopropyl)-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanamide;Einecs 288-891-4
43	89685-61-0	1-Propanesulfonic acid, 3-[ethyl(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino] -, sodium salt
44	90480-57-2	Octanoic acid, pentadecafluoro-, mixed esters with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] and 2,2'-[1,6-hexanediylbis(oxymethylene)]bis[oxirane]
45	90622-99-4	Amides, C7-19, alpha-omega-perfluoro-N,N-bis(hydroxyethyl)
46	91032-01-8	Fatty acids, C7-19, perfluoro
47	93480-00-3	Poly(oxy-1,2-ethanediyl),a-[2-[2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]ethyl]-w-hydroxy
48	93857-44-4	8:2 Fluorotelomer phosphate monoester ammonium salt
49	94200-45-0	Diammonium 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl phosphate
50	95370-51-7	Carbamic acid, [2-(sulfothio)ethyl]-, C-(gamma-omega-perfluoro-C6-9-alkyl) esters, monosodium salts
51	98241-25-9	Ethanaminium, N,N,N-triethyl-, salt with pentadecafluorooctanoic acid (1:1)
52	101947-16-4	Perfluorooctylethyltriethoxysilane
53	122402-79-3	Poly(oxy-1,2-ethanediyl), .alpha.-(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl)-.omega.-[(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl)oxy]-
54	148240-85-1	1,3-Propanediol, 2,2-bis(.gamma.-.omega.-perfluoro-C4-10-alkyl)thiomethyl derivs., phosphates, ammonium salts
55	148240-87-3	1,3-Propanediol, 2,2-bis(.gamma.-.omega.-perfluoro-C6-12-alkyl)thiomethyl derivs., phosphates, ammonium salts
56	160336-09-4	2-Propenoic acid, C16-18-alkyl esters, polymers with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl acrylate
57	185701-89-7	Trisiloxane, 3,3'-(3,3,4,4,5,5,6,6,7,7,8,8-dodecafluoro-1,10-decanediyl)bis[3-[(dimethylsilyl)oxy]-1,1,5,5-tetramethyl-, reaction products with 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-1-undecene
58	206886-57-9	Cyclotetrasiloxane, 2-(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecyl)-2,4,6,8-tetramethyl-, Si-[3-(oxiranylmethoxy)propyl] derivs
59	321318-71-2	2-Propenoic acid, 2-methyl-, methyl ester, telomere with 1-dodecanethiol, 2-ethylhexyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate and 2-Propenoic acid
60	325459-92-5	Tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)phenyl]phosphine
61	326475-46-1	bis[tris(4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)phenyl)phosphine]palladium(ii) dichloride
62	501098-09-5	Siloxanes and Silicones, di-Me, mono[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl group]-terminated, polymers with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decanol- and 2-hydroxyethyl acrylate-blocked 2,4-TDI-trimethylolpropane polymer
63	610800-34-5	Bis(perfluorooctyl) phosphinic acid; C6/C8-PFPIA
64	SN0036	PFOA salts and PFOA-related substances (esters, higher homologues, precursors and polymer of PFOA)

6.2. Level 2 Prohibited Substances

Level 2 Prohibited Substances are classified into Level 2A and Level 2B, according to the purpose of promoting substitution.

Level 2A Prohibited Substances refer to substances whose use will be phased out after a certain period by a treaty, law, or regulation, or substances whose prohibition to be used in products is promoted by the Panasonic Group prior to a period specified by a treaty, law, or regulation. As of now, there is no list of Level 2A Prohibited Substance/Substance Groups.

Level 2B Prohibited Substances refer to substances restricted for use on a voluntary basis by the Panasonic Group.

Table 3 List of Level 2B Prohibited Substances/Substance Groups

No	Substance/Substance Group	Major Laws Referenced	Date of Delivery Prohibition of components, materials, etc. to the Panasonic Group* ¹
1	Polyvinyl chloride (PVC) and its mixtures (see Table 4)	Panasonic Group's voluntary restriction	-

*1: When a Company/Business Division of the Panasonic Group sets its own timing earlier than these Guidelines in accordance with its circumstances (e.g. requests by a customer), information to that extent shall be communicated to relevant parties (e.g. suppliers).

Table 4 Regulated Items of Level 2B Prohibited Substances

Group Name: Polyvinylchloride (PVC) and its mixtures	
Regulated Items	
<p>Use in the following applications other than those specified in the exemptions:</p> <ul style="list-style-type: none"> (a) Internal wiring in equipment*¹ of new electrical and electronic equipment. (b) Packaging materials used for products and accessories, etc. to be included in the product package <p>Note that the restricted individual components and materials shall be handled upon request by each Company/Business Division of the Panasonic Group. The substitute polyvinyl chloride material shall be halogen-free (excluding fluorine) in principle. When using red phosphorus as a flame retardant, ensure compliance with product safety standards.</p>	
Exemptions	Decision by relevant Companies and BDs: In cases where: quality such as safety cannot be maintained; procurement is difficult; materials are specified by law or regulation; materials are specified by the customer, etc.

*1: Cables considered as equipment under the EU RoHS Directive are excluded.

6.3. Level 3 Prohibited Substances

A list is provided in Table 5.

Table 5 List of Level 3 Prohibited Substances/Substance Groups

Substance/Substance Group	Major law referenced
Phthalates other than DEHP, BBP, DBP, DIBP* ¹	EU REACH Annex XVII (Covered toys) California Proposition 65
Diarsenic trioxide, Diarsenic pentaoxide	EU REACH Annex XIV (Substances subject to authorization)
Cobalt dichloride	EU REACH Annex XIV (Substances subject to authorization) Draft proposal
Refractory Ceramic Fibers	EU REACH (Substances subject to authorization) Draft proposal
Beryllium oxide	Substance subject to reporting of information to WEEE recyclers
Perfluorohexane-1-sulphonic acid (PFHxS) and its salts and PFHxS-related substances	Started in fiscal 2018 in the Persistent Organic Pollutants Review Committee (POPRC)

*1: E.g. Diisononyl phthalate (DINP), Di-n-pentyl phthalate, Diisopentyl phthalate (DIPP), Di-n-octyl phthalate, Bis(2-methoxyethyl) phthalate, Di-"isodecyl" phthalate (DIDP), etc.

6.4. Managed Substances

This rank refers to substances whose consumption needs to be monitored and for which consideration needs to be given to human health, safety and hygiene, adequate treatment, etc. Although the use of these substances is not restricted, their use and contained concentration must be monitored. Of the applicable managed substances, when they are used "intentionally" or "inclusion is known," such substances need to be identified*¹.

*1: Reporting of contents of "managed substances" in the packaging used by component supplier for transportation/protection is not required if legal compliance etc. is unnecessary (e.g. when components subject to REACH regulations are exported to the EU along with packaging materials, it is required to report the content of candidate substances for authorization to its authority under the EU REACH Regulation (substances of very high concern; SVHC).)

The managed substances in these Guidelines are subject to the substances listed in the legal regulations, industry standards etc. shown in Table 6. These substances are equivalent to the applicable substances in the "chemSHERPA Declarable Substance Ver. (latest Version)" specified by the Joint Article Management Promotion Consortium (JAMP), excluding the prohibited substances specified by these guidelines.

Substances subject to management must fully be compliant if applicable regions or products are individually designated by a treaty, law, ordinance, industry guidelines, etc.

Table 6 Legal Regulations, Industry Standards etc. relating to the Managed Substances

Target regulations	Remarks
Japan Chemical Substances Control Law (Class 1 specified substances)	Excluding the prohibited substances specified in these Guidelines
US Toxic Substances Control Act (TSCA) Prohibition of use or restriction of substances (Section 6)	Excluding the prohibited substances specified in these Guidelines
EU REACH Annex XVII (Restrictions)	Excluding the prohibited substances specified in these Guidelines
EU REACH Regulation Candidate substances for authorization (Substances of Very High Concern (SVHC)) and ANNEX XIV (substances for authorization)	Excluding the prohibited substances specified in these Guidelines
EU POPs Regulation Annex I	Excluding the prohibited substances specified in these Guidelines
GADSL (Automotive industry) Global Automobile Declarable Substances List	Excluding the prohibited substances specified in these Guidelines
IEC 62474 (Electrical and electronic) Material Declaration for Products of and for the Electrotechnical Industry	Excluding the prohibited substances specified in these Guidelines

6.5. Substances List Specified by These Guidelines

A list of sample substances considered as "prohibited substances" is shown in Appendix 1. Because this list only shows examples of applicable substances, any substance not included in this list but classified as a "prohibited substance" shall be reported.

Refer to the following document and list for legal regulations with "prohibited substances" and "managed substances" as specified in these guidelines and the subject substances covered per industry standards.

– "Explanation of chemSHERPA Declarable Substances"*

* Reference addresses of the materials and list:

The manual is included in the chemSHERPA data entry support tool package (latest)

Japanese <https://chemsherpa.net/tool>

English, Chinese <https://chemsherpa.net/english/tool>

6.6. Reference

In order to check the applicability of the "managed substances," the chemSHERPA data entry support tool obtained from the link provided in 6.5 may be used. However, the tool is only considered an auxiliary means of checking the applicability of the substance. Even if the data entry support tool does not indicate a substance as declarable, the substance still needs to be reported if it is known to be subject to legal regulations.

7. Main Change Points from Version 11 to Version 12

(1) Level 1 Prohibited Substances

- Added “Chemical Substances Control Law” to the major referenced law for Short-chain chlorinated paraffin (SCCPs, C10–13)
- Added “Minamata Convention” to the major referenced law for Mercury and its compounds.
- Separately described respective Panasonic Group’s regulated contents for the four phthalates in the section for the EU RoHS Directive, and the section for the EU REACH Annex XVII.
- Changed the category of hydrofluorocarbon (HFC) from Level 2 Prohibited Substances to Level 1 Prohibited Substances. Added the covered substances on the Table 2.
- Changed the category of Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances from Level 2 Prohibited Substances to Level 1. Deleted the Norwegian product regulation from the major referenced law. Added covered substances on the Table 2.

(2) Other revisions

Amended part	Amended Contents
2.2 Application to Components, Devices, Materials, etc.	Changed the contents of (8).
6.1.1 Legislation in Japan and items subject to the requirements	-In line with the amendment of the Ozone Layer Protection Act, changed to the official name of the law and the covered materials. -Added “Minamata Convention on Mercury”.
Table 4 Regulated Items of Level 2B Prohibited Substances	Added “Decision by relevant Companies and BDs” for the exemption
Table 5 List of Level 3 Prohibited Substances/Substance Groups	Deleted the “four phthalates (DEHP, BBP, DBP, DIBP) used in batteries”: -*1: Changed the “Dioctyl phthalate” to “Di-n-Octyl” phthalate -*2: Deleted the “batteries (primary batteries), accumulators (secondary batteries), and battery packs”.

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
			This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.											
Yes			PCBs	1336-36-3	Polychlorinated biphenyls	PCB	Yes					Yes	Prohibited: intentional use in mixtures and articles and concentration must be less than 50ppm	
Yes			PCTs	61788-33-8	Polychlorinated terphenyls	PCT				Yes	Prohibited: content exceeding 50 mg/kg, content in mixtures and in articles			
Yes			Asbestos	1332-21-4	Asbestos, unspecified					Yes	Prohibited: intentional use in articles prohibited			
Yes			Asbestos	12172-73-5	Amosite					Yes	Prohibited: intentional use in articles prohibited			
Yes			Asbestos	12001-29-5	Chrysotile					Yes	Prohibited: intentional use in articles prohibited			
Yes			Asbestos	12001-28-4	Crocidolite					Yes	Prohibited: intentional use in articles prohibited			
Yes			Asbestos	77536-66-4	ACTINOLITE					Yes	Prohibited: intentional use in articles prohibited			
Yes			Asbestos	77536-67-5	ANTHOPHYLLITE					Yes	Prohibited: intentional use in articles prohibited			
Yes			Asbestos	77536-68-6	TREMOLITE					Yes	Prohibited: intentional use in articles prohibited			
Yes			Specific organic tin compounds (1)	56-35-9	Bis(tri-n-butyltin)oxide		Yes, antimold, antiseptic agnets, paints							0.3983
Yes			Specific organic tin compounds (1)	1066-44-0	Bromotrimethylstannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4871
Yes			Specific organic tin compounds (1)	1066-45-1	Trimethyltin chloride					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.5957
Yes			Specific organic tin compounds (1)	1067-52-3	Tributyltin methoxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3697
Yes			Specific organic tin compounds (1)	1067-97-6	Tributyltin hydroxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3866
Yes			Specific organic tin compounds (1)	1118-03-2	Trimethyltin azide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.5767
Yes			Specific organic tin compounds (1)	1118-14-5	Trimethyltin acetate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.5327
Yes			Specific organic tin compounds (1)	13302-06-2	tributyltin methanesulphonate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3082
Yes			Specific organic tin compounds (1)	13331-52-7	Tributyltin Acrylate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3287
Yes			Specific organic tin compounds (1)	14275-57-1	(Z)-5,5,12,12-tetrabutyl-7,10-dioxo-6,11-dioxa-5,12-distannahexadec-8-ene					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3420
Yes			Specific organic tin compounds (1)	1461-22-9	Tributyltin chloride; tributylchlorostannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3647
Yes			Specific organic tin compounds (1)	1461-23-0	Tributyltin bromide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3209
Yes			Specific organic tin compounds (1)	1529-30-2	Triethyltin phenoxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3970
Yes			Specific organic tin compounds (1)	1803-12-9	Triphenyltin dimethyldithiocarbamate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2524
Yes			Specific organic tin compounds (1)	18380-71-7	Stannane, triphenyl[(2,2,4,4-tetramethyl-oxopentyl)oxy]-					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2340

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws		RoHS	Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law		EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Specific organic tin compounds (1)	18380-72-8	Stannane, [[2,3-dimethyl-2-(1-methylethyl)-oxobutyl]oxy]triphenyl-				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2340	
Yes			Specific organic tin compounds (1)	1907-13-7	Triethyltin acetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4481	
Yes			Specific organic tin compounds (1)	1983-10-4	Tributyltin fluoride				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3841	
Yes			Specific organic tin compounds (1)	20369-63-5	Tributyltin dimethyldithiocarbamate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2893	
Yes			Specific organic tin compounds (1)	2155-70-6	Tributyltin methacrylate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3164	
Yes			Specific organic tin compounds (1)	2179-92-2	tributyltin cyanide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3756	
Yes			Specific organic tin compounds (1)	2279-76-7	Tripolytin chloride				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4188	
Yes			Specific organic tin compounds (1)	24124-25-2	Tributyltin linoleate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2084	
Yes			Specific organic tin compounds (1)	25711-26-6	Butanedioic acid, 2-methylene-, 1,4-bis(tributylstannyl) ester; Bis(tributyltin)itaconate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3352	
Yes			Specific organic tin compounds (1)	26239-64-5	Tributan-1-ylstannyl (1R,4aR,4bR,10aR)-7-isopropyl-1,4a-dimethyl-1,2,3,4,4a,4b,5,6,10,10a-decahydrophenanthrene-1-carboxylate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2007	
Yes			Specific organic tin compounds (1)	27147-18-8	Tributyltin cinnamate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2715	
Yes			Specific organic tin compounds (1)	2767-61-5	Tripolytin bromide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3621	
Yes			Specific organic tin compounds (1)	2943-86-4	Triethyltin iodide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3567	
Yes			Specific organic tin compounds (1)	3090-35-5	Tributyl(oleoyloxy)stannane				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2077	
Yes			Specific organic tin compounds (1)	3090-36-6	Tributyltinlaurate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2426	
Yes			Specific organic tin compounds (1)	31732-71-5	(R*,S*)-8,9-dibromo-5,5,12,12-tetrabutyl-7,10-dioxo-6,11-dioxa-5,12-distannahexadecane				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2780	
Yes			Specific organic tin compounds (1)	3267-78-5	Tripolytin acetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3867	
Yes			Specific organic tin compounds (1)	33550-22-0	Tributyltin gamma-chlorobutyrate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2884	
Yes			Specific organic tin compounds (1)	3644-32-4	P-NITROPHENOXYTRIBUTYLTIN				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2773	
Yes			Specific organic tin compounds (1)	3644-37-9	(2-biphenyloxy)tributyltin				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2585	
Yes			Specific organic tin compounds (1)	36631-23-9	tributyltin naphthenate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2740	
Yes			Specific organic tin compounds (1)	379-52-2	Triphenyltinfluoride				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3217	

This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws		RoHS	Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law		EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Specific organic tin compounds (1)	4027-14-9	Tributyltin nonanoate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2654	
Yes			Specific organic tin compounds (1)	4027-17-2	tributyltin cyanate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3575	
Yes			Specific organic tin compounds (1)	4027-18-3	2-Butenoic acid,4-oxo-4-[[tributylstannyl]oxy]but-2-enoic acid				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2930	
Yes			Specific organic tin compounds (1)	4154-35-2	Tripropyltin methacrylate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3564	
Yes			Specific organic tin compounds (1)	4342-30-7	Tri-n-butyl tin salicylate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2779	
Yes			Specific organic tin compounds (1)	4342-36-3	Tributyltin benzoate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2887	
Yes			Specific organic tin compounds (1)	4638-25-9	Trimethyltin thiocyanate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.5350	
Yes			Specific organic tin compounds (1)	47672-31-1	Stannane, [(1-oxodecyl)oxy]triphenyl-				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2277	
Yes			Specific organic tin compounds (1)	4782-29-0	Bis(tributyltin)phthalate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3190	
Yes			Specific organic tin compounds (1)	5035-67-6	Tributyltin 2-ethylhexanoate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2740	
Yes			Specific organic tin compounds (1)	53404-82-3	tributyltin isopropylsuccinate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2643	
Yes			Specific organic tin compounds (1)	53466-85-6	Tributyltin monopropylene glycol maleate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2563	
Yes			Specific organic tin compounds (1)	56-24-6	Trimethyltin hydroxide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.6565	
Yes			Specific organic tin compounds (1)	56-36-0	Tributyltin acetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3400	
Yes			Specific organic tin compounds (1)	56573-85-4	Tributyltin				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3647	
Yes			Specific organic tin compounds (1)	57808-37-4	Tripropyltin laurate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2654	
Yes			Specific organic tin compounds (1)	5847-52-9	tributyltin chloroacetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3095	
Yes			Specific organic tin compounds (1)	63869-87-4	Trimethyltin sulphate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4550	
Yes			Specific organic tin compounds (1)	639-58-7	Triphenyl tin chloride				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3080	
Yes			Specific organic tin compounds (1)	6454-35-9	(E)-5,5,12,12-tetrabutyl-7,10-dioxo-6,11-dioxa-5,12-distannahexadec-8-ene				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3420	
Yes			Specific organic tin compounds (1)	6517-25-5	Tributyltin sulfamate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3074	
Yes			Specific organic tin compounds (1)	67772-01-4	Copolymer of alkyl(c=8) acrylate,methyl methacrylate and tributyltin methacrylate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.180*	

*Adopt the maximum value because the tin conversion coefficient varies in accordance with the copolymerization composition ratio.

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws		RoHS	Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law		EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Specific organic tin compounds (1)	681-99-2	Tributyltin isothiocyanate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3575	
Yes			Specific organic tin compounds (1)	688-73-3	Tributyltin (and salts and esters)				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4078	
Yes			Specific organic tin compounds (1)	69226-47-7	tributyltin undecylenate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2573	
Yes			Specific organic tin compounds (1)	7094-94-2	Triphenyltinchloroacetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2677	
Yes			Specific organic tin compounds (1)	7342-38-3	triisobutyltin chloride; chloro(trisobutyl)stannane				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3647	
Yes			Specific organic tin compounds (1)	7342-45-2	Tripropyltin iodide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3167	
Yes			Specific organic tin compounds (1)	7342-47-4	Tributyltin iodide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2847	
Yes			Specific organic tin compounds (1)	73927-91-0	Tributyltin iodoacetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2499	
Yes			Specific organic tin compounds (1)	73927-92-1	Tripropyltin iodoacetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2742	
Yes			Specific organic tin compounds (1)	73927-93-2	tributyltin o-iodobenzoate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2210	
Yes			Specific organic tin compounds (1)	73927-95-4	Tributyltin .beta.-iodopropionate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2427	
Yes			Specific organic tin compounds (1)	73927-97-6	Tributyltin isooctylthioacetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2406	
Yes			Specific organic tin compounds (1)	73940-88-2	tributyltin p-iodobemzoate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2210	
Yes			Specific organic tin compounds (1)	73940-89-3	Tributyltin .alpha.-(2,4,5-trichlorophenoxy) propionate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2125	
Yes			Specific organic tin compounds (1)	752-58-9	1,3,5-tris(tributyltin)-S-triazine-2,4,6-trione				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3575	
Yes			Specific organic tin compounds (1)	76-87-9	Triphenyltin hydroxide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3234	
Yes			Specific organic tin compounds (1)	811-73-4	Trimethyltin iodide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4083	
Yes			Specific organic tin compounds (1)	85409-17-2	Tributyltin naphthenate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4199	
Yes			Specific organic tin compounds (1)	892-20-6	Triphenyltin hydride				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3382	
Yes			Specific organic tin compounds (1)	894-09-7	Triphenyltin iodide				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2489	
Yes			Specific organic tin compounds (1)	900-95-8	Triphenyltinacetate				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2902	
Yes			Specific organic tin compounds (1)	94850-90-5	Stannane, [(1-oxoundecyl)oxy]triphenyl-				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2218	
Yes			Specific organic tin compounds (1)	994-31-0	Triethyltin chloride				Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.4919	

This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
			This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.											
Yes			Specific organic tin compounds (1)	994-32-1	Triethyltin hydroxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.5326
Yes			Specific organic tin compounds (1)	1262-21-1	Bis(triphenyltin) oxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3316
Yes			Specific organic tin compounds (1)	13435-05-7	Tris(tributyltin) phosphate; 5,5,9,9-Tetrabutyl-7-[(tributylstannyloxy]-6,8-dioxo-7-phospho-5,9-distannatridecane-7-oxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3690
Yes			Specific organic tin compounds (1)	15082-85-6	Tribenzyltin hydroxide; Tribenzylhydroxystannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2902
Yes			Specific organic tin compounds (1)	1954-36-5	Phthalic acid bis(triphenyltin(IV)) salt; [1,2-Phenylene bis(carbonyloxy)] bistrphenyl stannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2747
Yes			Specific organic tin compounds (1)	3644-29-9	Triphenyl tin laurate; [(1-Oxododecyl)oxyc]triphenylstannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2161
Yes			Specific organic tin compounds (1)	3644-38-0	Tributyltin pentachlorophenolate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2137
Yes			Specific organic tin compounds (1)	4756-53-0	Tributyltin terephthalate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3190
Yes			Specific organic tin compounds (1)	5847-51-8	Tri-n-butyl tin formate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3543
Yes			Specific organic tin compounds (1)	668-34-8	Triphenyltin					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3391
Yes			Specific organic tin compounds (1)	682-00-8	Tributyltin ethoxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.3542
Yes			Specific organic tin compounds (1)	68725-14-4	Tri-n-butyltin trifluoromethanesulfonic acid					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2703
Yes			Specific organic tin compounds (1)	910-06-5	Triphenyltin benzoate; Triphenylstannyl benzoate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof			0.2520
Yes			Short-chained chlorinated paraffins (C10-13)	85535-84-8	Short-chained chlorinated paraffins(C10-13)	SCCP						Yes	Prohibited: content exceeding 1 wt%, content in mixtures Prohibited: intentional use in articles prohibited	
Yes			PBBs and PBDEs	59536-65-1 (67774-32-7)	Polybrominated biphenyls	PBB			Yes	Yes	Prohibited: content in textiles that come into contact with the skin			
Yes			PBBs and PBDEs	40088-47-9	Tetrabromodiphenyl ether	PBDE	Yes		Yes			Yes	- Prohibited: intentional use - Prohibited (as unintentional use, contaminant): concentration exceeding 10 ppm, content in mixtures, articles, flame-retarded parts	
Yes			PBBs and PBDEs	32534-81-9	Pentabromodiphenyl ether	PBDE	Yes		Yes			Yes	(For EEE, prioritize the RoHS Directive. When using recycled material, the concentration must be less than 0.1%)	
Yes			PBBs and PBDEs	36483-60-0	Hexabromodiphenyl ether	PBDE	Yes		Yes			Yes		
Yes			PBBs and PBDEs	68928-80-3	Heptabromodiphenyl ether	PBDE	Yes		Yes			Yes		
Yes			PBBs and PBDEs	32536-52-0	Octabromodiphenyl Ether	PBDE			Yes	Yes	Prohibited: content exceeding 0.1wt% and content in articles			
Yes			PBBs and PBDEs	63936-56-1	Nonabromodiphenyl ether	PBDE			Yes					

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>				Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes				PBBs and PBDEs	1163-19-5	Decabromodiphenyl ether	PBDE			Yes	Yes	Prohibited: content exceeding 0.1wt% and content in articles. (For EEE, prioritize the RoHS Directive.)	Yes	
Yes			azo dyes and pigments forming specified amines	SN0011	azo dyes and pigments forming specified amines					Yes	Prohibited: content exceeding 30 mg/kg, content in textiles that may come into contact with the skin or mouth and leather products			
Yes			polychlorinated naphthalene (1 or more chlorine atoms)	25586-43-0	Monochloronaphthalene							Yes		
Yes			polychlorinated naphthalene (1 or more chlorine atoms)	28699-88-9	Dichloronaphthalene		Yes, lubricant, cutting oil, paints					Yes		
Yes			polychlorinated naphthalene (1 or more chlorine atoms)	1321-65-9	Trichloronaphthalene		Yes, lubricant, cutting oil, paints					Yes	Prohibited: intentional use in mixtures and articles	
Yes			polychlorinated naphthalene (1 or more chlorine atoms)	1335-88-2	Tetrachloronaphthalene		Yes, lubricant, cutting oil, paints					Yes	Prohibited: intentional use in mixtures and articles	
Yes			polychlorinated naphthalene (1 or more chlorine atoms)	1321-64-8	Pentachloronaphthalene		Yes, lubricant, cutting oil, paints					Yes	Prohibited: intentional use in mixtures and articles	
Yes			polychlorinated naphthalene (1 or more chlorine atoms)	2234-13-1	Octachloronaphthalene		Yes, lubricant, cutting oil, paints					Yes	Prohibited: intentional use in mixtures and articles	
Yes			ozone depleting substneces	75-71-8	Dichlorodifluoromethane	CF2Cl2	CFC-12		Yes					
Yes			ozone depleting substneces	354-58-5 76-13-1	Trichlorotrifluoroethane	C2F3Cl3	CFC-113		Yes					
Yes			ozone depleting substneces	75-69-4	Trichlorofluoromethane	CFC13	CFC-11		Yes					
Yes			ozone depleting substneces	28605-74-5 76-12-0	tetrachlorodifluoroethane	C2F2Cl4	CFC-112		Yes					
Yes			ozone depleting substneces	1320-37-2 76-14-2	dichlorotetrafluoroethane	C2F4Cl2	CFC-114		Yes					
Yes			ozone depleting substneces	76-15-3	Chloropentafluoroethane	C2F5Cl	CFC-115		Yes					
Yes			ozone depleting substneces	75-72-9	Chlorotrifluoromethane	CF3Cl	CFC-13		Yes					
Yes			ozone depleting substneces	354-56-3	Pentachlorofluoroethane	C2FC15	CFC-111		Yes					
Yes			ozone depleting substneces	135401-87-5	Heptachlorofluoropropane	C3FC17	CFC-211		Yes					
Yes			ozone depleting substneces	3182-26-1	Hexachlorodifluoropropane	C3F2Cl6	CFC-212		Yes					
Yes			ozone depleting substneces	2354-06-5	Pentachlorotrifluoropropane	C3F3Cl5	CFC-213		Yes					
Yes			ozone depleting substneces	29255-31-0 2268-46-4	Tetrachlorotetrafluoropropane	C3F4Cl4	CFC-214		Yes					
Yes			ozone depleting substneces	1599-41-3 1652-81-9	Trichloropentafluoropropane	C3F5Cl3	CFC-215		Yes					
Yes			ozone depleting substneces	661-97-2	Dichlorohexafluoropropane	C3F6Cl2	CFC-216		Yes					
Yes			ozone depleting substneces	422-86-6	Heptafluoropropyl chloride	C3F7Cl	CFC-217		Yes					
Yes			ozone depleting substneces	1511-62-2	Bromodifluoromethane	CHF2Br	HBFC-22B1		Yes					
Yes			ozone depleting substneces	1868-53-7	Dibromofluoromethane	CH2Br2			Yes					
Yes			ozone depleting substneces	373-52-4	Bromofluoromethane	CH2FBr			Yes					
Yes			ozone depleting substneces	306-80-9	Tetrabromofluoroethane	C2HFBr4			Yes					
Yes			ozone depleting substneces	----	Tribromodifluoroethane	C2HF2Br3			Yes					
Yes			ozone depleting substneces	354-04-1	Dibromotrifluoroethane	C2HF3Br2			Yes					
Yes			ozone depleting substneces	124-72-1	Bromotetrafluoroethane	C2HF4Br			Yes					
Yes			ozone depleting substneces	----	Tribromofluoroethane	C2HF2Br3			Yes					
Yes			ozone depleting substneces	75-82-1	Dibromodifluoroethane	C2HF3Br2			Yes					
Yes			ozone depleting substneces	421-06-7	1,1,1-Trifluoro-2-bromoethane				Yes					
Yes			ozone depleting substneces	358-97-4	Dibromofluoroethane	C2H3FBr2			Yes					
Yes			ozone depleting substneces	----	Bromodifluoroethane	C2H3F2Br			Yes					
Yes			ozone depleting substneces	762-49-2	Bromofluoroethane	C2H4FBr			Yes					
Yes			ozone depleting substneces	----	Hexabromofluoropropane	C3HFBr6			Yes					
Yes			ozone depleting substneces	----	Tribromotetrafluoropropane	C3HF4Br3			Yes					
Yes			ozone depleting substneces	----	Tribromotrifluoropropane	C3HF3Br3			Yes					
Yes			ozone depleting substneces	431-78-7	Dibromopentafluoropropane	C3HF5Br2			Yes					
Yes			ozone depleting substneces	2252-79-1	Bromohexafluoropropane	C3HF6Br			Yes					
Yes			ozone depleting substneces	----	Pentabromodifluoropropane	C3HF2Br5			Yes					

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>											
Yes			ozone depleting substnces	----	Tetrabromotrifluoropropane	C3HF3Br4		Yes						
Yes			ozone depleting substnces	----	Pentabromofluoropropane	C3H2FBr5		Yes						
Yes			ozone depleting substnces	----	Tetrabromodifluoropropane	C3H2F2Br4		Yes						
Yes			ozone depleting substnces	----	Dibromotetrafluoropropane	C3H2F4Br2		Yes						
Yes			ozone depleting substnces	460-88-8	Bromopentafluoropropane	C3H2F5Br		Yes						
Yes			ozone depleting substnces	----	Tetrabromofluoropropane	C3H3FBr4		Yes						
Yes			ozone depleting substnces	70192-80-2	Tribromodifluoropropane	C3H3F2Br3		Yes						
Yes			ozone depleting substnces	70192-83-5	Dibromotrifluoropropane	C3H3F3Br2		Yes						
Yes			ozone depleting substnces	679-84-5	Bromotetrafluoropropane	C3H3F4Br		Yes						
Yes			ozone depleting substnces	75372-14-4	Tribromofluoropropane	C3H4FBr3		Yes						
Yes			ozone depleting substnces	460-25-3	Dibromodifluoropropane	C3H4F2Br2		Yes						
Yes			ozone depleting substnces	51584-26-0	Dibromofluoropropane	C3H5FBr2		Yes						
Yes			ozone depleting substnces	421-46-5	bromotrifluoropropane	C3H4F3Br		Yes						
Yes			ozone depleting substnces	353-59-3	Bromochlorodifluoromethane	CF2BrCl	halon-1211	Yes						
Yes			ozone depleting substnces	74-97-5	Bromochloromethane	CH2BrCl		Yes						
Yes			ozone depleting substnces	75-63-8	Bromotrifluoromethane	CF3Br	halon-1301	Yes						
Yes			ozone depleting substnces	----	Bromodifluoropropane	C3H5F2Br		Yes						
Yes			ozone depleting substnces	352-91-0	Bromofluoropropane	C3H6FBr		Yes						
Yes			ozone depleting substnces	124-73-2	1,2-Dibromotetrafluoroethane	C2F4Br2	halon-2402	Yes						
Yes			ozone depleting substnces	56-23-5	Carbon tetrachloride			Yes						
Yes			ozone depleting substnces	71-55-6	1,1,1-trichloroethane			Yes						
Yes			formaldehyde	50-00-0	formaldehyde					Yes	Prohibited: formaldehyde concentration exceeding 75mg/kg in clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin. (To be applied from Nov. 1, 2020 onwards)			
Yes			Cadmium and its compounds	7440-43-9	Cadmium				Yes	Yes				
Yes			Cadmium and its compounds	10108-64-2	Cadmium chloride				Yes	Yes				
Yes			Cadmium and its compounds	1306-19-0	Cadmium oxide				Yes	Yes				
Yes			Cadmium and its compounds	10325-94-7	Cadmium Nitrate				Yes	Yes	- Prohibited: Cd concentration exceeding 0.01 wt%, content in mixtures and articles produced from plastic material			
Yes			Cadmium and its compounds	513-78-0	Cadmium carbonate				Yes	Yes	- Prohibited: concentration exceeding 1 mg/kg after extraction (expressed as Cd metal that can be extracted from the material),			
Yes			Cadmium and its compounds	1306-23-6	Cadmium sulfide				Yes	Yes	content in textiles which, under normal or reasonably foreseeable conditions of use, come into contact with human skin. (To be applied from Nov. 1, 2020 onwards)			
Yes			Cadmium and its compounds	10124-36-4	Cadmium sulfate				Yes	Yes				
Yes			Cadmium and its compounds	12214-12-9	Cadmium selenide sulfide				Yes	Yes				
Yes			Cadmium and its compounds	1306-24-7	Cadmium Selenide				Yes	Yes				
Yes			Cadmium and its compounds	1306-25-8	Cadmium Telluride				Yes	Yes				
Yes			Cadmium and its compounds	21041-95-2	Cadmium Hydroxide				Yes	Yes				
Yes			Cadmium and its compounds	2223-93-0	Cadmium Stearate				Yes	Yes				
Yes			Cadmium and its compounds	SN0016	Cadmium compounds [group]				Yes	Yes				

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>											
Yes			Lead and its compounds	7439-92-1	Lead			Yes	Yes	Prohibited: Pb concentration exceeding 0.05 wt%, content in accessories • Prohibited: Pb concentration exceeding 1mg/kg after extraction of the Pb metal from materials, in clothing which , under normal or reasonably foreseeable conditions of use, come into contact with human skin. (To be applied from Nov. 1, 2020 onwards)				
Yes			Lead and its compounds	6080-56-4	Lead(II) acetate trihydrate			Yes	Yes					
Yes			Lead and its compounds	7446-27-7	Lead(II) phosphate			Yes	Yes					
Yes			Lead and its compounds	12069-00-0	Lead selenide			Yes	Yes					
Yes			Lead and its compounds	1309-60-0	Lead(IV) oxide			Yes	Yes					
Yes			Lead and its compounds	1314-41-6	Lead oxide			Yes	Yes					
Yes			Lead and its compounds	1344-36-1	Lead subcarbonate			Yes	Yes					
Yes			Lead and its compounds	7758-97-6	Lead(II) chromate			Yes	Yes					
Yes			Lead and its compounds	12202-17-4	Lead oxide sulfate			Yes	Yes					
Yes			Lead and its compounds	1072-35-1	Lead stearate			Yes	Yes					
Yes			Lead and its compounds	12060-00-3	lead titanate			Yes	Yes					
Yes			Lead and its compounds	12060-01-4	Lead (II) zirconate			Yes	Yes					
Yes			Lead and its compounds	1311-11-1	Lead hydroxide oxide			Yes	Yes					
Yes			Lead and its compounds	19783-14-3	Lead(II) hydroxide			Yes	Yes					
Yes			Lead and its compounds	1317-36-8	Lead (II) oxide			Yes	Yes					
Yes			Lead and its compounds	301-04-2	Lead acetate			Yes	Yes					
Yes			Lead and its compounds	10099-74-8	Lead (II) nitrate			Yes	Yes					
Yes			Lead and its compounds	1314-87-0	Lead (II) Sulfide			Yes	Yes					
Yes			Lead and its compounds	SN0023	lead compounds [group]			Yes	Yes					
Yes			Lead and its compounds	1319-46-6	Lead(II) carbonate, basic			Yes	Yes	- Prohibited: intentional use in paint - Prohibited: Pb concentration exceeding 0.05 wt%, content in accessories • Prohibited: Pb concentration exceeding 1mg/kg after extraction of the Pb metal from materials, in clothing which , under normal or reasonably foreseeable conditions of use, come into contact with human skin. (To be applied from Nov. 1, 2020 onwards)				
Yes			Lead and its compounds	598-63-0	Lead carbonate			Yes	Yes					
Yes			Lead and its compounds	7446-14-2	Lead (II) Sulfate			Yes	Yes					
Yes			Hexavalent chromium compounds	1344-38-3	basic lead chromate	Pigment Orange 21		Yes	Yes	- Prohibited: Cr(VI) concentration exceeding 3 mg/kg, content in leather articles coming into contact with the skin and articles containing leather parts coming into contact with the skin • Prohibited: Cr(VI) concentration exceeding 1mg/kg after extraction of the Cr(VI) from materials, in clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin. (To be applied from Nov. 1, 2020 onwards)				
Yes			Hexavalent chromium compounds	1344-37-2	Lead Chromate	Pigment Yellow 34		Yes	Yes					
Yes			Hexavalent chromium compounds	13530-68-2	Dichromic acid			Yes	Yes					
Yes			Hexavalent chromium compounds	7778-50-9	Potassium dichromate			Yes	Yes					
Yes			Hexavalent chromium compounds	10588-01-9	Sodium dichromate			Yes	Yes					
Yes			Hexavalent chromium compounds	1333-82-0	Chromium trioxide			Yes	Yes					
Yes			Hexavalent chromium compounds	10294-40-3	Barium Chromate			Yes	Yes					
Yes			Hexavalent chromium compounds	12053-18-8	Copper chromite			Yes	Yes					
Yes			Hexavalent chromium compounds	7789-06-2	strontium chromate			Yes	Yes					
Yes			Hexavalent chromium compounds	SN0019	Chromium (VI) compounds			Yes	Yes					

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Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>				Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Mercury and its compounds	7439-97-6	Mercury					Yes				
Yes			Mercury and its compounds	7487-94-7	Mercury bichloride; Mercuric chloride					Yes				
Yes			Mercury and its compounds	21908-53-2	Mercury (II) oxide					Yes				
Yes			Mercury and its compounds	15829-53-5	Mercurous Oxide					Yes				
Yes			Mercury and its compounds	593-74-8	Dimethyl mercury					Yes				
Yes			Mercury and its compounds	10112-91-1	Mercury chloride					Yes				
Yes			Mercury and its compounds	33631-63-9	Cyclohexylmethylmercuric chloride					Yes				
Yes			Mercury and its compounds	7783-35-9	Mercury(II) sulfate					Yes				
Yes			Mercury and its compounds	10045-94-0	Mercuric nitrate					Yes				
Yes			Mercury and its compounds	1344-48-5	Mercuric sulfide					Yes				
Yes			Mercury and its compounds	SN0024	Mercury compounds [group]					Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	307-35-7	1-Octanesulphonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	376-14-7	2-Propenoic acid, 2-methyl-, 2-[ethyl((heptadecafluorooctyl)sulphonyl)amino]ethyl ester		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	383-07-3	2-Propenoic acid, 2-[butyl((heptadecafluorooctyl)sulphonyl)amino]ethyl ester		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	423-82-5	2-Propenoic acid, 2-[ethyl((heptadecafluorooctyl)sulphonyl)amino]ethyl ester		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	423-86-9	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-2-propenyl-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	754-91-6	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	1652-63-7	1-Propanaminium, 3-[[[(heptadecafluorooctyl)sulphonyl]amino]-N,N,N-trimethyl-,		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	1691-99-2	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	1763-23-1	1-Octanesulphonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-	PFOS	Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	1869-77-8	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulphonyl]-, ethyl ester		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	2250-98-8	1-Octanesulphonamide, N,N',N''-[phosphinylidynetris(oxy-2,1-ethanediy)]tris[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	2263-09-4	1-Octanesulphonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	2795-39-3	1-Octanesulphonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, potassium salt		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	2991-50-6	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulphonyl]-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	2991-51-7	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulphonyl]-, potassium salt		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	3820-83-5	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	3871-50-9	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulphonyl]-, sodium salt		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	4151-50-2	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	13417-01-1	1-Octanesulphonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	14650-24-9	2-Propenoic acid, 2-methyl-, 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl ester		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	24448-09-7	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	24924-36-5	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	25268-77-3	2-Propenoic acid, 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl ester		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	29081-56-9	1-Octanesulphonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	29117-08-6	Poly(oxy-1,2-ethanediy), .alpha.-[2-[ethyl((heptadecafluorooctyl)sulphonyl)amino]ethyl]-		Yes					Yes		

-Prohibited: intentional use - (as unintentional use, contaminant): concentration exceeding 0.1 wt%, semi-finished products, articles, or parts, amount exceeding 1 µg/m2, content in surface treatment

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>			Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	29457-72-5	1-Octanesulphonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, lithium salt		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	30295-51-3	1-Octanesulphonamide, N-[3-(dimethyloxidoamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	30381-98-7	1-Octanesulphonamide, N,N'-[phosphinobis(oxy-2,1-ethanediy)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	31506-32-8	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-methyl-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	38006-74-5	1-Propanaminium, 3-[[[(heptadecafluorooctyl)sulphonyl]amino]-N,N',N'-trimethyl-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	50598-29-3	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(phenylmethyl)-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	52550-45-5	Poly(oxy-1,2-ethanediy), a-[2-[[[(heptadecafluorooctyl)sulphonyl]propylamino]ethyl]-ω-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	56773-42-3	Ethanaminium, N,N',N'-triethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	57589-85-2	Benzoic acid, 2,3,4,5-tetrachloro-6-[[[3-[[[(heptadecafluorooctyl)sulphonyl]oxy]phenyl]amino]carbonyl		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	58920-31-3	2-Propenoic acid, 4-[[[(heptadecafluorooctyl)sulphonyl]methylamino]butyl ester		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	61577-14-8	2-Propenoic acid, 2-methyl-, 4-[[[(heptadecafluorooctyl)sulphonyl]methylamino]butyl ester		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	61660-12-6	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[3-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	67939-42-8	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[3-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	67969-69-1	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	67939-88-2	1-Octanesulphonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68081-83-4	Carbamic acid, (4-methyl-1,3-phenylene)bis-, bis[2-[ethyl]((perfluoro-C4-8-alkyl)sulphonyl)amino]ethyl ester		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68298-11-3	1-Propanaminium, 3-[[[(heptadecafluorooctyl)sulphonyl](3-sulphopropyl)amino]-N-(2-hydroxyethyl)-N,N-dimethyl-,		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68329-56-6	2-Propenoic acid, eicosyl ester, polymer with 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl 2-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68239-73-6	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(4-hydroxybutyl)-N-methyl-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68310-75-8	1-Propanaminium, 3-[[[(heptadecafluorooctyl)sulphonyl]amino]-N,N',N'-trimethyl-,		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68541-80-0	2-Propenoic acid, polymer with 2-[ethyl]((heptadecafluorooctyl)sulphonyl)amino]ethyl 2-methyl-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68555-90-8	2-Propenoic acid, butyl ester, polymer with 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl 2-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68555-91-9	2-Propenoic acid, 2-methyl-, 2-[ethyl]((heptadecafluorooctyl)sulphonyl)amino]ethyl ester,		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68555-92-0	2-Propenoic acid, 2-methyl-, 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl ester,		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68608-14-0	Sulphonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl), reaction products with 1,1'-methylenebis[4-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68649-26-3	1-Octanesulphonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68867-60-7	2-Propenoic acid, 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl ester,		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68877-32-7	2-Propenoic acid, 2-methyl-, 2-[ethyl]((heptadecafluorooctyl)sulphonyl)amino]ethyl ester,		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68891-96-3	Chromium, diaquatetrachloro[.mu.-[N-ethyl-N-[[[(heptadecafluorooctyl)sulphonyl] glycinato-		Yes				Yes			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68909-15-9	2-Propenoic acid, eicosyl ester, polymers with branched octyl acrylate, 2-		Yes				Yes			

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Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Perfluorooctane sulfonate and its salts (PFOS)	68958-61-2	Poly(oxy-1,2-ethanediyl), .alpha.-[2-ethyl]((heptadecafluorooctyl)sulphonyl)amino]ethyl]-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	70225-14-8	1-Octanesulphonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	70776-36-2	2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 1,1-dichloroethene, 2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	71463-78-0	Phosphonic acid, [3-ethyl]((heptadecafluorooctyl)sulphonyl)amino]propyl]-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	71463-80-4	Phosphonic acid, [3-ethyl]((heptadecafluorooctyl)sulphonyl)amino]propyl]-,		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	71487-20-2	2-Propenoic acid, 2-methyl-, methylester, polymer with ethenylbenzene, 2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	91081-99-1	Sulphonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with epichlorohydrin, adipates		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	92265-81-1	Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-ethoxyethyl 2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	94133-90-1	1-Propanesulphonic acid, 3-[[3-(dimethylamino)propyl]((heptadecafluorooctyl)		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	94313-84-5	Carbamic acid, [5-[[[2-[[[heptadecafluorooctyl)sulphonyl]methylamino]ethoxy]carbo		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	98999-57-6	Sulphonamides, C7-8-alkane, perfluoro, N-methyl-N-[2-[(1-oxo-2-propenyl)oxy]ethyl], polymers with 2-ethoxyethyl		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	127133-66-8	2-Propenoic acid, 2-methyl-, polymers with Bu methacrylate, lauryl methacrylate and 2-[methyl]((perfluoro-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	129813-71-4	Sulphonamides, C4-8-alkane, perfluoro, N-methyl-N-(oxiranylmethyl)		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	148240-78-2	Fatty acids, C18-unsatd., trimers, 2-[[heptadecafluorooctyl)sulphonyl]methylamino]ethyl esters		Yes					Yes	-Prohibited: intentional use	
Yes			Perfluorooctane sulfonate and its salts (PFOS)	148684-79-1	Sulphonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with 1,6-diisocyanatohexane		Yes					Yes	(as unintentional use, contaminant): concentration	
Yes			Perfluorooctane sulfonate and its salts (PFOS)	160901-25-7	Sulphonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl), reaction products with 2-ethyl-1-hexanol and		Yes					Yes	exceeding 0.1 wt%, semi-finished	
Yes			Perfluorooctane sulfonate and its salts (PFOS)	178094-69-4	1-Octanesulphonamide, N-[3-(dimethylloxidoamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes					Yes	products, articles, or parts, amount	
Yes			Perfluorooctane sulfonate and its salts (PFOS)	178535-22-3	Sulphonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl)-, polymers with 1,1'-methylenebis[4-		Yes					Yes	exceeding 1 µg/m2, content in	
Yes			Perfluorooctane sulfonate and its salts (PFOS)	182700-90-9	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-methyl-, reaction products with benzene-		Yes					Yes	surface treatment	
Yes			Perfluorooctane sulfonate and its salts (PFOS)	192662-29-6	Sulphonamides, C4-8-alkane, perfluoro, N-[3-(dimethylamino)propyl], reaction products with acrylic acid		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	251099-16-8	1-Decanaminium, N-decyl-N,N-dimethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306973-46-6	Fatty acids, linseed-oil, dimers, 2-[[[heptadecafluorooctyl)sulphonyl]methylamino]ethyl esters		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306973-47-7	Sulphonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with 12-hydroxystearic acid and		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306974-19-6	Sulphonamides, C4-8-alkane, perfluoro, N-methyl-N-[(3-octadecyl-2-oxo-5-oxazolidinyl)methyl]		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306974-28-7	Siloxanes and Silicones, di-Me, mono[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]group]-terminated, polymers with 2-		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306974-45-8	Sulphonic acids, C6-8-alkane, perfluoro, compounds with polyethylene-polypropylene glycol bis(2-aminopropyl) ether		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306974-63-0	Fatty acids, C18-unsatd., dimers, 2-[methyl]((perfluoro-C4-8-alkyl)sulphonyl)amino] ethyl esters		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306975-56-4	Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306975-57-5	Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] and		Yes					Yes		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306975-62-2	2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with 2-[methyl]((perfluoro-C4-8-alkyl)sulphonyl)amino]ethyl acrylate		Yes					Yes		

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			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>				Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold		
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306975-84-8	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, polymer with 1,6-diisocyanatohexane, N-(hydroxyethyl)-N-		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306975-85-9	2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with N-(hydroxymethyl)-2-propenamide, 2-[methyl(perfluoro-C4-		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306976-25-0	1-Hexadecanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, bromide, polymers with Bu acrylate,		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306976-55-6	2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with 2,4-diisocyanato-1-methylbenzene, 2-ethyl-2-		Yes				Yes	-Prohibited: intentional use - (as unintentional use, contaminant): concentration exceeding 0.1 wt%, semi-finished products, articles, or parts, amount exceeding 1 µg/m2, content in surface treatment			
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306977-58-2	2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymers with acrylic acid, 2-[methyl(perfluoro-C4-8-		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306978-04-1	2-Propenoic acid, butyl ester, polymers with acrylamide, 2-[methyl(perfluoro-C4-8-alkyl)sulphonylamino]ethyl acrylate		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306978-65-4	Hexane, 1,6-diisocyanato-, homopolymer, N-(hydroxyethyl)-N-methyl perfluoro-C4-8-alkane sulphonamides- and stearyl		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306979-40-8	Poly(oxy-1,2-ethanediyl), .alpha.-[2-(methylamino)ethyl]-.omega.-[1,1,3,3-tetramethylbutyl)phenoxy]-, N-[(perfluoro-		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	306980-27-8	Sulphonamides, C4-8-alkane, perfluoro, N,N'-[1,6-hexanediybis[(2-oxo-3,5-oxazolidinediyl)methylene]]bis[N-		Yes				Yes				
Yes			Perfluorooctane sulfonate and its salts (PFOS)	SN0035	Perfluorooctane sulfonates(PFOS) C8F17SO2X (X = OH, Metal salt (O-M+), halide, amide, and other derivatives		Yes				Yes				
Yes			Specified benzotriazole	3846-71-7	Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)-		Yes								
Yes			dimethylfumarate	624-49-7	dimethylfumarate						Yes		Prohibited: content exceeding 0.1 mg/kg, content in articles or a part thereof		
Yes			Specific organic tin compounds (2): DBTs	1002-53-5	Dibutyl stannane						Yes		Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.5052
Yes			Specific organic tin compounds (2): DBTs	10192-92-4	Dibutyltin dimaleate						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2564	
Yes			Specific organic tin compounds (2): DBTs	1067-33-0	Dibutyltin diacetate						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.3382	
Yes			Specific organic tin compounds (2): DBTs	1185-81-5	Dibutyltin dilauryl mercaptide						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1867	
Yes			Specific organic tin compounds (2): DBTs	13173-04-1	3,8,10-Trioxa-9-stannatetradeca-5,12-dien-14-oic acid, 9,9-dibutyl-4,7,11-trioxo-, ethyl ester, (Z,Z)-						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2286	
Yes			Specific organic tin compounds (2): DBTs	13323-62-1	Dibutyltin dioleate						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1492	
Yes			Specific organic tin compounds (2): DBTs	13323-63-2	Dibutyltin dipalmitate						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1596	
Yes			Specific organic tin compounds (2): DBTs	14214-24-5	Dibutyltin disalicylate						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2341	
Yes			Specific organic tin compounds (2): DBTs	15546-11-9	Di-n-butyltin bis(methyl maleate)						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2417	
Yes			Specific organic tin compounds (2): DBTs	15546-12-0	Dibutyltin di(2-ethylhexyl maleate)						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1727	
Yes			Specific organic tin compounds (2): DBTs	15546-16-4	Di-n-butyltin di(monobutyl)maleate						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2063	
Yes			Specific organic tin compounds (2): DBTs	163206-28-8	Tin, dibutyl(1,2-ethanediamine,N,N')bis(monoisooctyl 2-butenedioato-O')						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1588	
Yes			Specific organic tin compounds (2): DBTs	17523-06-7	Bis (acetato) dibutyltin						Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.3382	

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							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Specific organic tin compounds (2): DBTs	19704-60-0	Dibutyltin dihexanoate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2563	
Yes			Specific organic tin compounds (2): DBTs	22535-42-8	3,8,10-Trioxa-9-stannatetradeca-5,12-dien-14-oic acid, 9,9-dibutyl-2-methyl-4,7,11-trioxo-, 1-methylethyl ester, (Z,Z)-					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2169	
Yes			Specific organic tin compounds (2): DBTs	22673-19-4	Tin, dibutylbis(2,4-pentanedionato-O,O')-, (OC-6-11)-					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2753	
Yes			Specific organic tin compounds (2): DBTs	25168-24-5	Dibutyltin bis(isooctyl mercaptoacetate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1856	
Yes			Specific organic tin compounds (2): DBTs	26636-01-1	Dibutyltin S,S'-bis (isooctyl mercaptoacetate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2137	
Yes			Specific organic tin compounds (2): DBTs	26761-46-6	Dibutyltin di(isooctyl 3-mercaptopropionate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1778	
Yes			Specific organic tin compounds (2): DBTs	2781-09-1	Dibutyltin bis(octylthioglycolate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1856	
Yes			Specific organic tin compounds (2): DBTs	2781-10-4	Di-n-butyltin di-2-ethylhexanoate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2286	
Yes			Specific organic tin compounds (2): DBTs	29881-72-9	Dibutyltin bis(oleyl maleate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1231	
Yes			Specific organic tin compounds (2): DBTs	32011-18-0	Acetate, S,S'-bisooctylmercapto-, dibutyltin					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1856	
Yes			Specific organic tin compounds (2): DBTs	32011-19-1	Tin, dibutylbis(methyl 3-mercaptopropanoato-O,S)-					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2519	
Yes			Specific organic tin compounds (2): DBTs	33466-31-8	5,7,12-Trioxa-6-stannatetradeca-2,9-dienoic acid, 6,6-dibutyl-4,8,11-trioxo-, dodecyl ester, (Z,Z)-					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1484	
Yes			Specific organic tin compounds (2): DBTs	3349-36-8	Dibutyltin dibutoxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.3131	
Yes			Specific organic tin compounds (2): DBTs	4731-77-5	Dibutyltin dioctanoate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2286	
Yes			Specific organic tin compounds (2): DBTs	51287-83-3	Dibutyltin bis(lauryl .beta.-mercaptopropionate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1522	
Yes			Specific organic tin compounds (2): DBTs	53202-61-2	Dibutyltin bis(2-ethylhexyl-3-mercaptopropionate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1778	
Yes			Specific organic tin compounds (2): DBTs	54581-65-6	Dibutylbis (ethyl 3-oxobutyrato-O1',O3)l tin					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2417	
Yes			Specific organic tin compounds (2): DBTs	5847-54-1	Dibutyltin dibenzoate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2498	
Yes			Specific organic tin compounds (2): DBTs	5847-55-2	Dibutyltin distearate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1484	
Yes			Specific organic tin compounds (2): DBTs	61947-30-6	Diisobutyltin oxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.4769	
Yes			Specific organic tin compounds (2): DBTs	67924-24-7	Tin, dibutylbis(N,N-diethylethanamine)difluoro-					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2508	
Yes			Specific organic tin compounds (2): DBTs	68239-46-3	Tin, dibutyl[[N-(carboxymethyl)-N-(2-hydroxyethyl)glycinato(2-)]-					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2909	
Yes			Specific organic tin compounds (2): DBTs	683-18-1	Dibutyltin dichloride					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.3907	

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Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Specific organic tin compounds (2): DBTs	7324-74-5	Dibutyltin bis(benzyl maleate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1845	
Yes			Specific organic tin compounds (2): DBTs	75113-37-0	Dibutyltin hydrogen borate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.4055	
Yes			Specific organic tin compounds (2): DBTs	77-58-7	Dibutyltin dilaurate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1880	
Yes			Specific organic tin compounds (2): DBTs	78-04-6	Dibutyltin maleate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.3421	
Yes			Specific organic tin compounds (2): DBTs	78-06-8	Dibutyltin mercaptopropionate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.3522	
Yes			Specific organic tin compounds (2): DBTs	78-20-6	Dibutyltin mercaptoacetate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.3675	
Yes			Specific organic tin compounds (2): DBTs	818-08-6	Dibutyltin oxide					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.4769	
Yes			Specific organic tin compounds (2): DBTs	85391-79-3	Dibutyltin linoleate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1499	
Yes			Specific organic tin compounds (2): DBTs	85702-74-5	Dibutyltin isooctanoate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2286	
Yes			Specific organic tin compounds (2): DBTs	95873-60-2	Dibutyltin linolenate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1507	
Yes			Specific organic tin compounds (2): DBTs	25168-21-2	Dibutyltin bis(isooctylmaleate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1727	
Yes			Specific organic tin compounds (2): DBTs	10584-98-2	Dibutyltinbis(2-ethylhexyl mercaptoacetate); 2-Ethylhexyl-4,4-dibutyl-10-ethyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1856	
Yes			Specific organic tin compounds (2): DBTs	28660-63-1	Dibutyltin dibutyrate; Bis(butanoyloxy)dibutylstannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.2916	
Yes			Specific organic tin compounds (2): DBTs	59963-28-9	Dibutyltin diisostearate; Dibutylbis[(1-oxoisooctadecyl)oxy]stannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in mixtures and in articles or a part thereof		0.1484	
Yes			Specific organic tin compounds (2): DBTs	93925-42-9	Silicic acid (H4SiO4), tetraethyl ester, reaction products with bis(acetyloxy)dibutylstannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.2100	
Yes			Specific organic tin compounds (3): DOTs	870-08-6	Diocetyl tin oxide; Diocetylloxostannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.3287	
Yes			Specific organic tin compounds (3): DOTs	15571-58-1	Diocetyl tin bis(2-ethylhexyl thioglycolate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.1579	
Yes			Specific organic tin compounds (3): DOTs	16091-18-2	Diocetyl tin maleate					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.2585	
Yes			Specific organic tin compounds (3): DOTs	26401-97-8	Diocetyl tin					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.1579	
Yes			Specific organic tin compounds (3): DOTs	33568-99-9	Diocetyl tin bis(isooctyl maleate)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.1484	
Yes			Specific organic tin compounds (3): DOTs	3542-36-7	Diocetyl tin dichloride					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.2853	
Yes			Specific organic tin compounds (3): DOTs	22205-30-7	Bis(dodecylthio)diocetyl stannane; Diocetyl tin bis(dodecylmercaptide)					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.1587	
Yes			Specific organic tin compounds (3): DOTs	3648-18-8	Diocetyl tin dilaurate; Diocetyl bis[(1-oxododecyl)oxy] stannane					Yes	Prohibited: tin concentration exceeding 0.1 wt%, content in articles or a part thereof		0.1596	

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Appendix 1 List of sample substances considered as "Prohibited Substances"

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Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
			This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.											
Yes			Polycyclic aromatic hydrocarbons (PAH)	50-32-8	Benzo[a]pyrene (BaP)	BaP				Yes	Prohibited: concentration exceeding 1 mg/kg, content in rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity			
Yes			Polycyclic aromatic hydrocarbons (PAH)	192-97-2	Benzo[e]pyrene (BeP)	BeP				Yes	Prohibited: dictylin dilaurate concentration exceeding 1mg/kg in clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin. (To be applied from Nov. 1, 2020 onwards.)			
Yes			Polycyclic aromatic hydrocarbons (PAH)	56-55-3	Benzo[a]anthracene (BaA)	BaA				Yes				
Yes			Polycyclic aromatic hydrocarbons (PAH)	218-01-9	Chrysen (CHR)	CHR				Yes				
Yes			Polycyclic aromatic hydrocarbons (PAH)	205-99-2	Benzo[b]fluoranthene (BbFA)	BbFA				Yes				
Yes			Polycyclic aromatic hydrocarbons (PAH)	205-82-3	Benzo[j]fluoranthene (BjFA)	BjFA				Yes				
Yes			Polycyclic aromatic hydrocarbons (PAH)	207-08-9	Benzo[k]fluoranthene (BkFA)	BkFA				Yes				
Yes			Polycyclic aromatic hydrocarbons (PAH)	53-70-3	Dibenzo [a, h] anthracene (DBAhA)	DBAhA								
Yes			Hydrochlorofluorocarbons (HCFC)	75-45-6	Chlorodifluoromethane	CHClF2		Yes						
Yes			Hydrochlorofluorocarbons (HCFC)	1717-00-6	1,1-dichloro-1-fluoroethane	C2H3Cl2F		Yes						
Yes			Hydrochlorofluorocarbons (HCFC)	SN0061	Hydrochlorofluorocarbons (HCFC's) [group]			Yes						
Yes			Hexabromocyclododecane (HBCD)	3194-55-6, 25637-99-4, 134237-50-6, 134237-51-7, 134237-52-8, 4736-49-6, 65701-47-5, 138257-17-7, 138257-18-8, 138257-19-9, 169102-57-2, 678970-15-5, 678970-16-6, 678970-17-7	Hexabromocyclododecane	HBCD, HBCDD				Yes	Prohibited: content exceeding 0.1wt% and content in toys and childcare articles as plasticized material			
Yes			Phthalates	117-81-7	Bis(2-ethylhexyl) phthalate	DEHP, DOP		Yes	Yes	Prohibited: total concentration of the four phthalates exceeding 0.1wt%.				
Yes			Phthalates	85-68-7	Benzyl butyl phthalate	BBP		Yes	Yes					
Yes			Phthalates	84-74-2	Dibutyl phthalate	DBP		Yes	Yes					
Yes			Phthalates	84-69-5	Diisobutyl phthalate	DIBP		Yes	Yes					
Yes			Chlorinated phosphate ester flame retardants	13674-87-8	Tris(1,3-dichloro-2-propyl)phosphate	TD CPP								
Yes			Chlorinated phosphate ester flame retardants	115-96-8	Tris(2-chloroethyl)phosphate	TCEP								
Yes			Chlorinated phosphate ester flame retardants	13674-84-5	Tris(1-chloro-2-propyl)phosphate	TCPP								
Yes			Hydrofluorocarbon (HFC)	75-46-7	Trifluoromethane	HFC-23								
Yes			Hydrofluorocarbon (HFC)	75-10-5	Difluoromethane	HFC-32								
Yes			Hydrofluorocarbon (HFC)	593-53-3	Methyl fluoride	HFC-41								
Yes			Hydrofluorocarbon (HFC)	354-33-6	Ethane, pentafluoro-	HFC-125								
Yes			Hydrofluorocarbon (HFC)	359-35-3	1,1,2,2-Tetrafluoroethane	HFC-134								
Yes			Hydrofluorocarbon (HFC)	811-97-2	1,1,1,2-Tetrafluoroethane	HFC-134a								
Yes			Hydrofluorocarbon (HFC)	430-66-0	1,1,2-Trifluoroethane	HFC-143								
Yes			Hydrofluorocarbon (HFC)	420-46-2	Ethane, 1,1,1-trifluoro-	HFC-143a								
Yes			Hydrofluorocarbon (HFC)	624-72-6	1,2-Difluoroethane	HFC-152								
Yes			Hydrofluorocarbon (HFC)	75-37-6	1,1-Difluoroethane	HFC-152a								
Yes			Hydrofluorocarbon (HFC)	431-89-0	Propane, 1,1,1,2,3,3,3-heptafluoro-	HFC-227ea								
Yes			Hydrofluorocarbon (HFC)	677-56-5	1,1,1,2,2,3-Hexafluoro-propane (HFC-236cb)	HFC-236cb								
Yes			Hydrofluorocarbon (HFC)	431-63-0	1,1,1,2,3,3-Hexafluoropropane	HFC-236ea								
Yes			Hydrofluorocarbon (HFC)	690-39-1	Propane, 1,1,1,3,3,3-hexafluoro-	HFC-236fa								

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							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>											
Yes			Hydrofluorocarbon (HFC)	679-86-7	1,1,2,2,3-Pentafluoropropane (HFC-245ca)	HFC-245ca								
Yes			Hydrofluorocarbon (HFC)	460-73-1	1,1,1,3,3-Pentafluoropropane	HFC-245fa								
Yes			Hydrofluorocarbon (HFC)	406-58-6	1,1,1,3,3-Pentafluorobutane	HFC-365mfc								
Yes			Hydrofluorocarbon (HFC)	138495-42-8	Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro-	HFC-43-10mee								
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	335-67-1	Pentadecafluorooctanoic acid	PFOA					Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	335-66-0	Pentadecafluorooctyl fluoride						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	335-93-3	Silver(1+) perfluorooctanoate						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	335-95-5	Sodium pentadecafluorooctanoate						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	376-27-2	Methyl perfluorooctanoate						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	507-63-1	C8 iodide: (Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-8-iodo-)						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	678-39-7	8-2 telomer alcohol:						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	678-41-1	Polyfluoroalkyl phosphoric acid diesters; 8:2 Fluorotelomer phosphate diester; 8:2 diPAP						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	1996-88-9	8:2 Fluorotelomer methacrylate; 8:2 FTMAC						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	2043-53-0	2-(perfluorooctyl)ethyl iodide, 8-2 telomer iodide:						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	3102-79-2	Polyfluorinated silanes; Perfluorodecyldichloromethylsilane; C8-PFSi						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	3108-24-5	Ethylperfluorooctanoate						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	21652-58-4	8:2 Fluorotelomer olefin; 8:2 FTO						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	2395-00-8	Potassium salt of PFOA						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	24216-05-5	3,4-bis[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]benzenesulphonyl chloride;3,4-Bis(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	27854-31-5	Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	27905-45-9	Fluorotelomer acrylates; 8:2 Fluorotelomer acrylate; 8:2 FTAC						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	33496-48-9	Pentadecafluorooctanoic anhydride						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	3825-26-1	Ammoniumpentadecafluorooctanoate						Yes			

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							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
			This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.											
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	39186-68-0	2-carboxyethylbis(2-hydroxyethyl)-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]propylammonium hydroxide					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	40143-78-0	Per- and polyfluorinated phosphonic acids; Perfluorooctyl phosphonic acid; C8-PFPA						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	40143-79-1	Bis(perfluorooctyl) phosphinic acid; C8/C8-PFPIA						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	41358-63-8	N-[3-[bis(2-hydroxyethyl)amino]propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanamide						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	53515-73-4	2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester, polymer with 2-propenoic acid						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	53517-98-9	1-Propanaminium,N,N,N-trimethyl-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-, chloride						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	57678-03-2	8:2 Fluorotelomer phosphate monoester; 8:2 monoPAP						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	65530-57-6	Poly(difluoromethylene), alpha-fluoro-omega-[2- [(2-trimethylammonio)ethyl]thio]ethyl]-, methyl sulfate						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	65530-61-2	Poly(difluoromethylene), .alpha.-fluoro-.omega.-2-(phosphonoxy)ethyl-						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	65530-62-3	Poly(difluoromethylene), .alpha.,.alpha.-phosphinicobis(oxy-2,1-ethanediyl)bis.omega.-fluoro-						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	68141-02-6	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+)						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	68333-92-6	Fatty acids, C7-13, perfluoro						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	69278-80-4	Fatty acids, C7-13, perfluoro, compds. with ethylamine						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	70887-84-2	2-Decenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hexadecafluoro-						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	71608-61-2	Pentanoic acid, 4,4-bis(.gamma.-omega.-perfluoro-C8-20-alkyl)thio derivs., compds. with diethanolamine;4,4-Bis[(gamma-omega-perfluoro-alkyl(C=8-20))thio]pentanoic						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	72623-77-9	Fatty acids, C6-18, perfluoro, ammonium salts						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	72968-38-8	Carboxylic acids, C7-13, perfluoro, ammonium salts						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	74612-30-9	Perfluorodecyldimethylchlorosilane						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	78560-44-8	Perfluorodecyltrichlorosilane						Yes			
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	80010-37-3	Poly(difluoromethylene), .alpha.-fluoro-.omega.-(2-sulfoethyl)-						Yes			

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							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	83048-65-1	Heptadecafluoro-1,1,2,2-tetrahydrodecyl) trimethoxysilane					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	84029-60-7	heptadecafluoro-1-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)oxy]nonene					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	85938-56-3	N-(3-aminopropyl)-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanamide;Einecs 288-891-4					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	89685-61-0	1-Propanesulfonic acid, 3-[ethyl(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino] -, sodium salt					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	90480-57-2	Octanoic acid, pentadecafluoro-, mixed esters with 2,2-[1,4-butanediylbis(oxyethylene)]bis[oxirane] and 2,2-[1,6-hexanediylbis(oxyethylene)]bis[oxirane]					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	90622-99-4	Amides, C7-19, alpha-omega-perfluoro-N,N-bis(hydroxyethyl)					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	91032-01-8	Fatty acids, C7-19, perfluoro					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	93480-00-3	Poly(oxy-1,2-ethanediyl), a-[2-[2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]ethyl]-w-hydroxy					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	93857-44-4	8:2 Fluorotelomer phosphate monoester ammonium salt					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	94200-45-0	Diammonium 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl phosphate					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	95370-51-7	Carbamic acid, [2-(sulfthio)ethyl]-, C-(gamma-omega-perfluoro-C6-9-alkyl) esters, monosodium salts					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	98241-25-9	Ethanaminium, N,N,N-triethyl-, salt with pentadecafluorooctanoic acid (1:1)					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	101947-16-4	Perfluorooctylethyltriethoxysilane					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	122402-79-3	Poly(oxy-1,2-ethanediyl), .alpha.-(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl)-.omega.-					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	148240-85-1	1,3-Propanediol, 2,2-bis(.gamma.-.omega.-perfluoro-C4-10-alkyl)thiomethyl derivs., phosphates, ammonium salts					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	148240-87-3	1,3-Propanediol, 2,2-bis(.gamma.-.omega.-perfluoro-C6-12-alkyl)thiomethyl derivs., phosphates, ammonium salts					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	160336-09-4	2-Propenoic acid, C16-18-alkyl esters, polymers with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl acrylate					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	185701-89-7	Trisiloxane, 3,3'-(3,3,4,4,5,5,6,6,7,7,8,8-dodecafluoro-1,10-decanediyl)bis[3-((dimethylsilyl)oxy)-1,1,5,5-tetramethyl-, reaction products with					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	206886-57-9	Cyclotetrasiloxane, 2-(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoroundecyl)-2,4,6,8-tetramethyl-, Si-[3-					Yes				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	321318-71-2	2-Propenoic acid, 2-methyl-, methyl ester, telomere with 1-dodecanethiol, 2-ethylhexyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl					Yes				

This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.

-In the case of PFOA (including its salts), concentration must be less than 25ppb (0.025 ppm)
 -In the case of combination of one or multiple PFOA-related substances, concentration must be less than 1000 ppb (1ppm) in total.
 (To be applied from Jul. 4, 2020 onwards)

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient	
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004			
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold		
			<p>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</p>												
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	325459-92-5	Tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)phenyl]phosphine					Yes					
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	326475-46-1	bis[tris(4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)phenyl)phosphine]palladium(ii) dichloride					Yes	-In the case of PFOA (including its salts), concentration must be less than 25ppb (0.025 ppm)				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	501098-09-5	Siloxanes and Silicones, di-Me, mono[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl group]-terminated, polymers with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro-1-					Yes	-In the case of combination of one or multiple PFOA-related substances, concentration must be less than 1000 ppb (1ppm) in total.				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	610800-34-5	Bis(perfluorooctyl) phosphinic acid; C6/C8-PFPIA					Yes	(To be applied from Jul. 4, 2020 onwards)				
Yes			Perfluorooctanoic acid (PFOA), its salts and PFOA-related substances	SN0036	PFOA salts and PFOA-related substances (esters, higher homologues, precursors and polymer of PFOA)					Yes					
	Yes		PVC and its mixtures	9002-86-2	PVC and its mixture										
		Yes	Phthalates	28553-12-0	Di-"isononyl" phthalate	DINP				Yes	Prohibited: DINP concentration in toy or child care supplies as plasticizer exceeding 0.1wt%.				
		Yes	Phthalates	117-84-0	Di-n-octyl phthalate	DNOP				Yes	Prohibited: concentration of: the single phthalate concentration or combination of other 3 phthalates exceeding 1000mg/kg in clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin.				
		Yes	Phthalates	26761-40-0	Di-"isodecyl" phthalate	DIDP				Yes	(To be applied from Nov. 1, 2020 onwards.)				
	Yes		Phthalates	131-18-0	Di-n-pentyl phthalate	DPP				Yes					
	Yes		Phthalates	605-50-5	Diisopentylphthalate	DIPP				Yes	Prohibited: concentration of: the single phthalate concentration or combination of other 3 phthalates exceeding 1000mg/kg in clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin.				
	Yes		Phthalates	117-82-8	Bis(2-methoxyethyl) phthalate	DMEP				Yes	(To be applied from Nov. 1, 2020 onwards.)				
	Yes		Phthalates	71888-89-6	1,2-Benzenedicarboxylic acid; Di-C6-8-branched alkylesters, C7-rich	DIHP				Yes					
	Yes		Phthalates	84-75-3	Di-n-hexyl phthalate (DnHP); Dihexyl phthalate	DnHP				Yes					
		Yes	Arsenic and its compounds	1303-28-2	Diarsenic pentaoxide					Yes	Prohibited: concentration of: Diarsenic pentaoxide exceeding 1mg/kg after extraction the As metal from materials, in clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin.				
		Yes	Arsenic and its compounds	1327-53-3	Diarsenic trioxide					Yes	(To be applied from Nov. 1, 2020 onwards.)				
	Yes		Cobalt and its compounds	7646-79-9	Cobalt dichloride										
	Yes		Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	355-46-4	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-; Perfluorohexane-1-sulphonic acid										
	Yes		Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	SN0090	Salts of Perfluorohexane-1-sulphonic acid										

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws		RoHS	Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law		EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1000597-52-3	Phosphonium, triphenyl(phenylmethyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	108427-54-9	1-Butanaminium, N,N,N-tributyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	108427-55-0	Ethanaminium, N,N,N-triethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1187817-57-7	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with pyrrolidine (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1310480-24-0	Ethanaminium, N-[4-[[4-(diethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1310480-27-3	Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1310480-28-4	Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(phenylamino)-1-naphthalenyl]methylene]-2,5-									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1329995-45-0	.beta.-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid ion(1-) (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1329995-69-8	.gamma.-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	144116-10-9	Sulfonium, triphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	1462414-59-0	Quinolinium, 1-(carboxymethyl)-4-[2-[4-(2,2-diphenylethenyl)phenyl]-1,2,3,3a,4,8b-									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	153443-35-7	Iodonium, diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	189274-31-5	Methanaminium, N,N,N-trimethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	202189-84-2	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2-methyl-2-propanamine (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	213740-81-9	Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	341035-71-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, gallium salt									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	341548-85-4	Sulfonium, bis(4-methylphenyl)phenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	350836-93-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, scandium(3+) salt (3:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	3871-99-6	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, potassium salt (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	41184-65-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, neodymium(3+) salt (3:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	41242-12-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, yttrium(3+) salt (3:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	421555-73-9	Sulfonium, (thiodi-4,1-phenylene)bis(diphenyl)-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	421555-74-0	Iodonium, bis[4-(1,1-dimethylpropyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	425670-70-8	Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	55120-77-9	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, lithium salt (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	68259-08-5	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, ammonium salt (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	70136-72-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, zinc salt (2:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	70225-16-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	72033-41-1	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with N,N-diethylethanamine (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	82382-12-5	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, sodium salt (1:1)									

Appendix 1 List of sample substances considered as "Prohibited Substances"

Rank			substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws				Tin conversion coefficient
Prohibited Sub Level 1	Prohibited Sub Level 2	Prohibited Sub Level 3					Class 1 Specified Chemicals in Chem-sub Law	Ozone Layer Law	RoHS	EU REACH Annex XVII (EC) No 1907/2006		EU POPs Annex I (EC) No 850/2004		
							Applicable, use limited and its threshold	Applicable	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited and its threshold	
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	866621-50-3	Iodonium, bis[(1,1-dimethylethyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	910606-39-2	Sulfonium, (4-methylphenyl)diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	911027-68-4	Sulfonium, [4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	911027-69-5	Sulfonium, [4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]diphenyl-, salt with									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	92011-17-1	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, cesium salt (1:1)									
		Yes	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	928049-42-7	Dibenzo[k,n][1,4,7,10,13]tetraoxathiacyclopentadecinium, 19-[4-(1,1-dimethylethyl)phenyl]-6,7,9,10,12,13-hexahydro-,									
		Yes	Others	SN0007	Aluminosilicate, Refractory Ceramic Fibres (with conditions									
		Yes	Others	SN0055	Zirconia Aluminosilicate, Refractory Ceramic Fibres (with									
		Yes	Others	1304-56-9	Beryllium oxide									

A part of expired exempted substances are not included on this list.

For the latest information on exempted substances, make sure to check details with the following European Commission RoHS web site:

http://ec.europa.eu/environment/waste/rohs_eee/adaptation_en.htm

To those who have an ID for the Panasonic Chemical Substance Management (PCSM) system,

refer to the latest information on exempted substances on the notice of the PCSM system.

Note that on the table below, the following abbreviations are respectively used for the categories.

Cat.1-7, 10 : for categories 1-7 and 10

Cat. 8 in vitro : for category 8 in vitro diagnostic medical devices

Cat. 9 industrial : for category 8 in vitro diagnostic medical devices

Cat. 8, 9 others : for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments

Cat.11 : for category 11

Categories of EEE are as follows:

1. Large household appliances.
2. Small household appliances.
3. IT and telecommunications equipment.
4. Consumer equipment.
5. Lighting equipment.
6. Electrical and electronic tools.
7. Toys, leisure and sports equipment.
8. Medical devices.
9. Monitoring and control instruments including industrial monitoring and control instruments.
10. Automatic dispensers.
11. Other EEE not covered by any of the categories above.

◆ Referenced legislation: EU RoHS Directive ANNEX III

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
1 (a)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes < 30 W: not exceeding (per burner) 2.5 mg	Currently under review in EU	To be set based on EU review results
1 (b)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes \geq 30 W and < 50 W: not exceeding (per burner) 3.5 mg	Currently under review in EU	To be set based on EU review results
1 (c)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes \geq 50 W and < 150 W: not exceeding (per burner) 5 mg	Currently under review in EU	To be set based on EU review results
1 (d)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes \geq 150 W: not exceeding (per burner) 15 mg	Currently under review in EU	To be set based on EU review results
1 (e)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes with circular or square structural shape and tube diameter \leq 17 mm: not exceeding (per burner) 7 mg	Currently under review in EU	To be set based on EU review results
1 (f)	Mercury in single capped (compact) fluorescent lamps for special purposes: not exceeding (per burner) 5 mg	Currently under review in EU	To be set based on EU review results
1 (g)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes < 30 W with a lifetime equal or above 20 000 h: not exceeding (per burner) 3.5 mg	Currently under review in EU	To be set based on EU review results
2 (a) (1)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2) for general lighting purposes not exceeding (per lamp): 4 mg	Currently under review in EU	To be set based on EU review results
2 (a) (2)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter \geq 9 mm and \leq 17 mm (e.g. T5) for general lighting purposes not exceeding (per lamp): 3 mg	Currently under review in EU	To be set based on EU review results
2 (a) (3)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and \leq 28 mm (e.g. T8) for general lighting purposes not exceeding (per lamp): 3.5 mg	Currently under review in EU	To be set based on EU review results
2 (a) (4)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12) for general lighting purposes not exceeding (per lamp): 3.5 mg	Currently under review in EU	To be set based on EU review results
2 (a) (5)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with long lifetime (\geq 25000h) for general lighting purposes not exceeding (per lamp): 5 mg	Currently under review in EU	To be set based on EU review results
2 (b) (1)	Mercury in other fluorescent lamps Linear halophosphate lamps with tube > 28 mm (e.g. T10 and T12) not exceeding (per lamp): 10 mg	13 April 2012	Already prohibited
2 (b) (2)	Mercury in other fluorescent lamps Non-linear halophosphate lamps (all diameters) not exceeding (per lamp): 15 mg	13 April 2016	Already prohibited
2 (b) (3)	Mercury in other fluorescent lamps Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) not exceeding (per lamp): 15 mg	Currently under review in EU	To be set based on EU review results
2 (b) (4)	Mercury in other fluorescent lamps for other general lighting and special purposes (e.g. induction lamps) not exceeding (per lamp): 15 mg	Currently under review in EU	To be set based on EU review results
3 (a)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Short length (\leq 500 mm) not exceeding (per lamp): 3.5 mg	Currently under review in EU	To be set based on EU review results
3 (b)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Medium length (> 500 mm and \leq 1 500 mm) not exceeding (per lamp): 5 mg	Currently under review in EU	To be set based on EU review results
3 (c)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Long length (> 1 500 mm) not exceeding (per lamp): 13 mg	Currently under review in EU	To be set based on EU review results

Appendix 2. Exempted Items List

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
4 (a)	Mercury in other low pressure discharge lamps not exceeding (per lamp):15 mg	Currently under review in EU	To be set based on EU review results
4 (b)-I	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$, $P \leq 155$ W: 30 mg	Currently under review in EU	To be set based on EU review results
4 (b)-II	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes with improved colour rendering index $R_a > 60$, 155 W $< P \leq 405$ W: 40 mg	Currently under review in EU	To be set based on EU review results
4 (b)-III	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes with improved colour rendering index $R_a > 60$, $P > 405$ W: 40 mg	Currently under review in EU	To be set based on EU review results
4 (c)-I	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes $P \leq 155$ W not exceeding (per burner):25 mg	Currently under review in EU	To be set based on EU review results
4 (c)-II	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes 155 W $< P \leq 405$ W not exceeding (per burner):30 mg	Currently under review in EU	To be set based on EU review results
4 (c)-III	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes $P > 405$ W not exceeding (per burner):40 mg	Currently under review in EU	To be set based on EU review results
4 (d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV). Expires on 13 April 2015	13 April 2015	Already prohibited
4 (e)	Mercury in metal halide lamps (MH)	Currently under review in EU	To be set based on EU review results
4 (f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	Currently under review in EU	To be set based on EU review results
4 (g)	Mercury in hand crafted luminous discharge tubes used for signs, decorative or architectural and specialist lighting and light-artwork, where the mercury content shall be limited as follows: (a) 20 mg per electrode pair + 0.3 mg per tube length in cm, but not more than 80 mg, for outdoor applications and indoor applications exposed to temperatures below 20 °C; (b) 15 mg per electrode pair + 0.24 mg per tube length in cm, but not more than 80 mg, for all other indoor applications.	31 December 2018	Already prohibited
5 (a)	Lead in glass of cathode ray tubes	21 July 2016 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
5(b)	Lead in glass of fluorescent tubes not exceeding 0.2% by weight	Currently under review in EU	To be set based on EU review results
6(a)	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight	30 June 2019 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	30 June 2019 (Cat.1–7, 10) (*Already determined by in-house discussion) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in batch hot dip galvanised steel components containing up to 0,2 % lead by weight	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
6(b)	Lead as an alloying element in aluminium containing up to 0.4% lead by weight	30 June 2019 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	30 June 2019 (Cat.1–7, 10) (*Already determined by in-house discussion) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
6(b)-I	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	2021/5/18 (Cat.1–7, 10)	2020/11/18 (Cat.1–7, 10)
6(c)	Copper alloy containing up to 4% lead by weight	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) (except applications covered by point 24 of this Annex)	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for tele-communications	21 July 2016 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)

Appendix 2. Exempted Items List

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound (except applications covered under point 34)	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher (Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex)	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	1 January 2013	Already prohibited
	Lead in dielectric ceramics in a capacitor with a rated voltage of AC 125 V or DC less than 250 V, which is a spare part of an electrical and electronic equipment placed on the market before January 1, 2013.	No deadline	No deadline
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
8(a)	Cadmium and its compounds in one shot pellet type thermal cut-offs	1 January 2012	Already prohibited
	Cadmium and its compounds in thermal cut-offs formed with batch loading kneading of compound pellets, that are spare parts of electrical and electronic equipment placed on the market before January 1, 2012.	No deadline	No deadline
8(b)	Cadmium and its compounds in electrical contacts	29 February 2020 (Cat.1–7, 10 (excluding applications covered by entry 8(b)I of this Annex)) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	29 August 2019 (Cat.1–7, 10 (excluding applications covered by entry 8(b)I of this Annex)) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
8(b)-I	Cadmium and its compounds in electrical contacts used in: — circuit breakers, — thermal sensing controls, — thermal motor protectors (excluding hermetic thermal motor protectors), — AC switches rated at: — 6 A and more at 250 V AC and more, or — 12 A and more at 125 V AC and more, — DC switches rated at 20 A and more at 18 V DC and more, and — switches for use at voltage supply frequency \geq 200 Hz	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
9	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0.75% by weight in the cooling solution	Currently under review in EU	To be set based on EU review results
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	5 July 2018 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
9(b)-I	Lead in bearing shells and bushes for refrigerant-containing hermetic scroll compressors with a stated electrical power input equal or below 9 kW for heating, ventilation, air conditioning and refrigeration (HVACR) applications	21 July 2019 (Category 1)	Prohibited (*Already determined by in-house discussion)
11(a)	Lead used in C-press compliant pin connector systems	25 September 2010	Already prohibited
	Lead used in C-press compliant pin connector system as a spare part of electrical and electronic equipment placed on the market before September 24, 2010.	No deadline	No deadline
11(b)	Lead used in other than C-press compliant pin connector systems	1 January 2013	Already prohibited
	Lead used in connector systems other than C-press compliant pin as a spare part of electrical and electronic equipment placed on the market before January 1, 2013.	No deadline	No deadline
12	Lead as a coating material for heat transfer module-type C ring	25 September 2010	Already prohibited
	Lead as a coating material for heat transfer module-type C ring used as a spare part of electrical and electronic equipment placed on the market before September 24, 2010.	No deadline	No deadline
13(a)	Lead in white glasses used for optical applications	21 July 2021 (Cat.1–7, 10 and Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10 and Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)

Appendix 2. Exempted Items List

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	5 July 2018 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
13(b)-(I)	Lead in ion coloured optical filter glass types	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
13(b)-(II)	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of the Annex III	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
13(b)-(III)	Cadmium and lead in glazes used for reflectance standards	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
14	Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight	1 January 2011	Already prohibited
	Lead in solder comprised of 2 or more elements at a content of 80 wt% or more but less than 85 wt%, used to connect the microprocessor pin and the package as a spare part of electrical and electronic equipment placed on the market before January 1, 2011.	No deadline	No deadline
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	29 February 2020 (Cat.1–7, 10 (excluding applications covered by entry 15(a) of this Annex)) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	29 August 2019 (Cat.1–7, 10 (excluding applications covered by entry 15(a) of this Annex)) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
15(a)	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 semiconductor technology node of 90 nm or larger; — a single die of 300 mm ² or larger in any semiconductor technology node; — stacked die packages with die of 300 mm ² or larger, or silicon interposers of 300 mm ² or larger.	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
16	Lead in linear incandescent lamps with silicate coated tubes	1 September 2013 (Cat.1–7, 10)	Already prohibited (Cat.1–7, 10)
17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	21 July 2016 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
18(a)	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) ₂ MgSi ₂ O ₇ :Pb)	1 January 2011 (Cat.1–7, 10)	Already prohibited (Cat.1–7, 10)
18(b)	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi ₂ O ₇ :Pb)	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
18(b)-I	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi ₂ O ₇ :Pb) when used in medical phototherapy equipment	21 July 2021 (Categories 5 and 8)	21 January 2021 (Categories 5 and 8)
19	Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL)	1 June 2011 (Cat.1–7, 10)	Already prohibited (Cat.1–7, 10)
20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	1 June 2011 (Cat.1–7, 10)	Already prohibited (Cat.1–7, 10)
21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	29 February 2020 (Cat.1–7, 10 (excluding applications covered by entry 21 (a)21 (c) of this Annex)) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	29 August 2019 (Cat.1–7, 10 (excluding applications covered by entry 21 (a)21 (c) of this Annex)) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
21(a)	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE (except applications covered by entry 21(b) or entry 39)	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses (except applications covered by entry 21(a) or 39)	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
21(c)	Lead in printing inks for the application of enamels on other than borosilicate glasses	21 July 2021 (Cat.1–7, 10)	21 January 2021 (Cat.1–7, 10)
23	Lead in parts treated with fine component finish where the pitch used as a spare part is 0.65 mm or less, and the spare part is of electrical and electronic equipment placed on the market before September 24, 2010.	–	Immediately prohibited (This item is not allowed even in spare parts since it had been prohibited in the Rank Guidelines.)

Appendix 2. Exempted Items List

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	21 July 2016 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
26	Lead oxide in the glass envelope of black light blue lamps	1 June 2011 (Cat.1–7, 10)	Already prohibited (Cat.1–7, 10)
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
30	Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more	21 July 2016 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
31	Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting)	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	21 July 2016 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
34	Lead in cermet-based trimmer potentiometer elements	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	21 July 2021 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	21 January 2021 (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
38	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	21 July 2016 (Cat.1–7, 10) 21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial and Cat.11)	Already prohibited (Cat.1–7, 10) 21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial and Cat.11)
39	Cadmium in colour converting II-VI LEDs (< 10 µg Cd per mm ² of light-emitting area) for use in solid state illumination or display systems	20 November 2018	Already prohibited
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µg Cd per mm ² of display screen area)	Currently under review in EU	To be set based on EU review results
40	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment	31 December 2013	Already prohibited
41	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council)	Currently under review in EU	To be set based on EU review results

Appendix 2. Exempted Items List

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: — with engine total displacement \geq 15 litres; or — with engine total displacement $<$ 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications. (excluding applications covered by entry 6(c) of this Annex)	21 July 2024 (Cat.11)	21 January 2024 (Cat.11)

Appendix 2. Exempted Items List

◆ Referenced legislation: EU RoHS Directive ANNEX IV			
No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
1	Lead, cadmium and mercury in detectors for ionising radiation.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
2	Lead bearings in X-ray tubes.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
3	Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
4	Lead in glass frit of X-ray tubes and image intensifiers and lead in glass frit binder for assembly of gas lasers and for vacuum tubes that convert electromagnetic radiation into electrons.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
5	Lead in shielding for ionising radiation.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
6	Lead in X-ray test objects.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
7	Lead stearate X-ray diffraction crystals.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
8	Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
1a	Lead and cadmium in ion selective electrodes including glass of pH electrodes.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
1b	Lead anodes in electrochemical oxygen sensors.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
1c	Lead, cadmium and mercury in infra-red light detectors.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
1d	Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
9	Cadmium in helium-cadmium lasers.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
10	Lead and cadmium in atomic absorption spectroscopy lamps.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
11	Lead in alloys as a superconductor and thermal conductor in MRI.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
12	Lead and cadmium in metallic bonds creating superconducting magnetic circuits in MRI, SQUID, NMR (Nuclear Magnetic Resonance) or FTMS (Fourier Transform Mass Spectrometer) detectors.	30 June 2021	30 December 2020
13	Lead in counterweights.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
14	Lead in single crystal piezoelectric materials for ultrasonic transducers.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
15	Lead in solders for bonding to ultrasonic transducers.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
16	Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RF switches and relays in monitoring and control instruments not exceeding 20 mg of mercury per switch or relay.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)

Appendix 2. Exempted Items List

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
17	Lead in solders in portable emergency defibrillators.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
18	Lead in solders of high performance infrared imaging modules to detect in the range 8-14 µm.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
19	Lead in Liquid crystal on silicon (LCoS) displays.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
20	Cadmium in X-ray measurement filters.	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
21	Cadmium in phosphor coatings in image intensifiers for X-ray images.	31 December 2019	30 June 2019
	Cadmium in phosphor coatings in spare parts for X-ray systems placed on the EU market before 1 January 2020.	No deadline	No deadline
22	Lead acetate marker for use in stereotactic head frames for use with CT and MRI and in positioning systems for gamma beam and particle therapy equipment.	2021/6/30	2020/12/30
23	Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation.	2021/6/30	2020/12/30
24	Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers.	31 December 2019	30 June 2019
25	Lead in the surface coatings of pin connector systems requiring nonmagnetic connectors which are used durably at a temperature below - 20 °C under normal operating and storage conditions.	2021/6/30	2020/12/30
26	Lead in the following applications that are used durably at a temperature below - 20 °C under normal operating and storage conditions: (a)solders on printed circuit boards; (b)termination coatings of electrical and electronic components and coatings of printed circuit boards; (c)solders for connecting wires and cables; (d)solders connecting transducers and sensors. Lead in solders of electrical connections to temperature measurement sensors in devices which are designed to be used periodically at temperatures below - 150 °C.	2021/6/30	2020/12/30
27	Lead in — solders, — termination coatings of electrical and electronic components and printed circuit boards, — connections of electrical wires, shields and enclosed connectors, which are used in (a) magnetic fields within the sphere of 1 m radius around the isocentre of the magnet in medical magnetic resonance imaging equipment, including patient monitors designed to be used within this sphere, or (b) magnetic fields within 1 m distance from the external surfaces of cyclotron magnets, magnets for beam transport and beam direction control applied for particle therapy.	Currently under review in EU	To be set based on EU review results
28	Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards.	2017/12/31	Already prohibited
29	Lead in alloys, as a superconductor or thermal conductor, used in cryo-cooler cold heads and/or in cryo-cooled cold probes and/or in cryo-cooled equipotential bonding systems, in medical devices (category 8) and/or in industrial monitoring and control instruments.	2021/6/30	2020/12/30
30	Hexavalent chromium in alkali dispensers used to create photocathodes in X-ray image intensifiers.	31 December 2019	30 June 2019
	Hexavalent chromium in alkali dispensers used to create photocathodes in spare parts for X-ray systems placed on the EU market before 1 January 2020.	No deadline	No deadline
31a	Lead, cadmium, hexavalent chromium, and polybrominated diphenyl ethers (PBDE) in spare parts recovered from and used for the repair or refurbishment of medical devices, including in vitro diagnostic medical devices, or electron microscopes and their accessories, provided that the reuse takes place in auditable closed-loop business-to-business return systems and that each reuse of parts is notified to the customer	21 July 2021 ((a) 21 July 2021 for the use in medical devices other than in vitro diagnostic medical devices) 21 July 2023 ((b) 21 July 2023 for the use in in vitro diagnostic medical devices) 21 July 2024 ((c) 21 July 2024 for the use in electron microscopes and their accessories)	21 January 2021 ((a) 21 July 2021 for the use in medical devices other than in vitro diagnostic medical devices) 21 January 2023 ((b) 21 July 2023 for the use in in vitro diagnostic medical devices) 21 January 2024 ((c) 21 July 2024 for the use in electron microscopes and their accessories)
32	Lead in solders on printed circuit boards of detectors and data acquisition units for Positron Emission Tomographs which are integrated into Magnetic Resonance Imaging equipment.	31 December 2019	30 June 2019
33	Lead in solders on populated printed circuit boards used in Directive 93/42/EEC class IIa and IIb mobile medical devices other than portable emergency defibrillators.		
	— class IIa	2016/6/30	Already prohibited
	— class IIb	2020/12/31	2020/6/30

Appendix 2. Exempted Items List

No.	Exemption	Scope and dates of applicability	Date from which delivery of components, materials, etc. to the Panasonic Group will be prohibited (Six months before the dates of applicability)
34	Lead as an activator in the fluorescent powder of discharge lamps when used for extracorporeal photopheresis lamps containing BSP (BaSi ₂ O ₅ :Pb) phosphors.	2021/7/22	2021/1/22
35	Mercury in cold cathode fluorescent lamps for back-lighting liquid crystal displays, not exceeding 5 mg per lamp, used in industrial monitoring and control instruments placed on the market before 22 July 2017	2024/7/21	2024/1/21
36	Lead used in other than C-press compliant pin connector systems for industrial monitoring and control instruments.	2020/12/31	2020/6/30
	Lead used in other than C-press compliant pin connector systems in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.	No deadline	No deadline
37	Lead in platinized platinum electrodes used for conductivity measurements where at least one of the following conditions applies: (a) wide-range measurements with a conductivity range covering more than 1 order of magnitude (e.g. range between 0.1 mS/m and 5 mS/m) in laboratory applications for unknown concentrations; (b) measurements of solutions where an accuracy of +/- 1% of the sample range and where high corrosion resistance of the electrode are required for any of the following: (i) solutions with an acidity < pH 1; (ii) solutions with an alkalinity > pH 13; (iii) corrosive solutions containing halogen gas; (c) measurements of conductivities above 100 mS/m that must be performed with portable instruments.	Currently under review in EU	To be set based on EU review results
38	Lead in solder in one interface of large area stacked die elements with more than 500 interconnects per interface which are used in X-ray detectors of CT (computed tomography) and X-ray systems.	31 December 2019	30 June 2019
	Lead in solder in one interface of large area stacked die elements with more than 500 interconnects per interface which are used in spare parts for CT and X-ray systems placed on the market before 1 January 2020.	No deadline	No deadline
39	Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present: (a) a compact size of the detector for electrons or ions, where the space for the detector is limited to a maximum of 3 mm/MCP (detector thickness + space for installation of the MCP), a maximum of 6 mm in total, and an alternative design yielding more space for the detector is scientifically and technically impracticable; (b) a two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies: (i) a response time shorter than 25 ns; (ii) a sample detection area larger than 149 mm ² ; (iii) a multiplication factor larger than 1,3 × 10 ³ . (c) a response time shorter than 5 ns for detecting electrons or ions; (d) a sample detection area larger than 314 mm ² for detecting electrons or ions; (e) a multiplication factor larger than 4,0 × 10 ⁷ .	21 July 2021 (Cat. 8, 9 others) 21 July 2023 (Cat. 8 in vitro) 21 July 2024 (Cat. 9 industrial)	21 January 2021 (Cat. 8, 9 others) 21 January 2023 (Cat. 8 in vitro) 21 January 2024 (Cat. 9 industrial)
40	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC for industrial monitoring and control instruments.	2020/12/31	2020/6/30
	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.	No deadline	No deadline
41	Lead as a thermal stabiliser in polyvinyl chloride (PVC) used as base material in amperometric, potentiometric and conductometric electrochemical sensors which are used in in-vitro diagnostic medical devices for the analysis of blood and other body fluids and body gases.	Currently under review in EU	To be set based on EU review results
42	Mercury in electric rotating connectors used in intravascular ultrasound imaging systems capable of high operating frequency (> 50 MHz) modes of operation.	Currently under review in EU	To be set based on EU review results
43	Cadmium anodes in Hersch cells for oxygen sensors used in industrial monitoring and control instruments, where sensitivity below 10 ppm is required.	2023/7/15	2023/1/15

Appendix 3. Controlled Values for Prohibited Substances

1. List of controlled values for prohibited substances

The following controlled values are content concentrations which are deemed “not exceeding” as long as non-use of the covered substance groups are properly managed, and must be managed by Panasonic Group. If the contained concentration of the Prohibited substance exceeds the controlled value, request the supplier for clarification of the reason of content, and request the supplier to reduce the contained concentration to below the controlled value as necessary. (Warranty for controlled value is not to be requested to suppliers).

Content concentrations are to be measured according to IEC 62321 (excluding the older version IEC 62321:2008).

Table A1- 1 List of controlled values for prohibited substances

Prohibited substance	Applicable part/material	Controlled value <small>(Content concentration that is deemed to not exceed when the non-use control of Level 1 Prohibited Substances/Substance Groups is properly managed)</small>
Cadmium	Resin (including rubber/film) Coatings, inks, pigments, dyes	Less than 20ppm ^{*1} (in state with no volatile elements)
	Lead-free solder <small>Bar solder, Wire solder, Resin flux cored solder, Solder paste, Solder ball</small>	Less than 20ppm
	<small>Soldered sections of purchased PC boards, Component solder</small>	
	Metal materials other than lead-free solder	Less than 75ppm
Lead	Resin (including rubber/film) Coatings, inks, pigments, dyes	Less than 100ppm ^{*1} (with no volatile elements)
	Lead-free solder <small>Bar solder, Wire solder, Resin flux cored solder, Solder paste, Solder ball</small>	Less than 500ppm
	<small>Soldered sections of purchased PC boards, Component solder</small>	Less than 800ppm
	Electroless nickel plating	Less than 800ppm
	Metal materials other than lead-free solder or electroless nickel plating	Less than 500ppm ^{*1*3}
	Glass (limited to uses in lamps)	Less than 500ppm

Hexavalent Chromium	Chromate treated parts/materials (base-layer zinc plating)	Less than 100ppm ^{*1*3} (Simple analysis method by Panasonic ^{*4})
	Surface treated materials other than base-layer zinc plating chromate treated parts/materials, whose thickness cannot be specified (excluding resins and surface treatment such as applying resin, tanning of animal hides, is applied.)	Less than 0.1µg/cm ² *1*5 (Method according to IEC 62321-7-1) Or simple analysis method ^{*4} by Panasonic ^{*6}
	Surface treated materials other than base-layer zinc plating chromate treated parts/materials, whose thickness can be specified (excluding parts/materials where the surface treated materials such as leather)	Less than 100ppm ^{*1} (Simple analysis method by Panasonic ^{*4})
PBB PBDE	Resin (including rubber/film)	Less than 100ppm
Cadmium, Lead, cadmium, hexavalent chromium, mercury	Packaging material For each homogenous material comprising packaging (for example, resin, ink, paint)	Less than 100ppm of total four heavy metals
Four phthalates	Plasticizer for resin (particularly polyvinyl chloride), paints, inks, elastomers (including rubber), and adhesives	Less than 300ppm
With respect to the "Applicable part/material" or "Prohibited substance" not specifically listed in the table above, the lower limit concentration ^{*7} quantitatively measured by the corresponding high-precision analysis method is to be used as the interim controlled value.		

*1: Does not apply to packaging material.

*2: Because the lead (Ex. lead 0.35wt% or less as iron alloy), which is exempted from application by the RoHS Directive, is applicable as an alloy content, the Directive is not applied to the lead as an impurity.

*3: Hexavalent chromium concentration based on zinc plating mass in the denominator

*4: The simple analysis method by Panasonic refers to "Hot water-extracted diphenylcarbazide absorption method" (Panasonic internal document)

*5: When the surface treatment mass cannot be calculated (for example, chromate processing and metal chrome plating on aluminum materials)

*6: With the method stated in IEC 62321-7-1, this substance is extracted with boiling water, however, with the simply analysis method by Panasonic, this substance is extracted with warm water at 80°C. Therefore, the measurement value is set at a lower value, taking into account the lack of extraction rate of hexavalent chromium.

*7: The value is determined by the sample quantity, analysis sensitivity of the analyzer (detection lower limit), etc. used by generally practiced high-precision analysis, or the detectable lower limit concentration of the target substance per unit sample quantity.

2. Controlled Value of Lead Concentration of Impurities in the Lead-free Solder Used in a Flow-solder Bath in Panasonic and at a Partner Company.

In a Panasonic or partner company production process, the lead concentration of lead-free solder used in a flow-solder bath should be kept below the controlled value in Table A1- 2.

Table A1- 2 Controlled value^{*1} of lead concentration in lead-free solder in a flow-solder bath

Prohibited substance	Applicable part/material	Controlled value
Lead	Lead-free solder in a flow-solder bath	Less than 800ppm (Simple analysis method by Panasonic ^{*2})

*1: This controlled value applies to internal production processes and does not specify the controlled value in the production process at a supplier.

*2: The simple analysis method by Panasonic refers to "Simple Analysis Method of Lead-Free Solder in a Flow-solder Bath" (Panasonic internal document).

Revision History

Date(ymd)	Amended part	Amended Contents
2014.7.1	Table A1-1	-Added a control value of lead for "Electroless nickel plating". -Changed the "Metal materials other than lead-free solder" to "Metal materials other than lead-free solder or electroless nickel plating."
2014.12.1	Table A1- 1	- Added "excluding resins and surface treatment such as applying resin, tanning of animal hides, is applied"
2018.5.22	Chapter 1, Opening	Added "Content concentrations are to be measured according to IEC 62321 (excluding the older version IEC 62321:2008)"
2018.5.22	Table A2- 1 and Table A2-2	-Changed the table No. of A2 to A1. -Deleted the descriptions of "High precision analytical method". -Updated the covered parts and materials of hexavalent chrome, and respective controlled values. -Added a line for the four phthalates. Changed the "Simple analytical method" to "Simple analysis method by Panasonic".
2018.5.22	Chapter 2	- Changed the "Simple analytical method" to "Simple analysis method by Panasonic".
2019.6.4	Chapter 1, Opening	- Changed the description for the control value to be consistent with the definition of the terms stated in 5.13.

Panasonic Group
Chemical Substances Management Rank Guidelines
Version 12 (For Products)

Revised on:
June 4, 2019

Issued by:
Quality & Environment Division
Panasonic Corporation