

**Panasonic Group**

**Chemical Substances Management  
Rank Guidelines**

**Version 8 (For Products)**

Enforced on October, 1 2011  
(Issued on July 13, 2011)

Corporate Environmental Affairs 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 improve environmental quality of the products produced and sold by the Panasonic Group companies by clarifying the chemical substances (environmentally impacting substances) that are prohibited or that require special management if contained in the components, devices, materials, etc. used and by advising the group's internal operations, and external suppliers of components, devices, and materials of this resolution.

## 2. Application

### (1) Application to Products

- 1) Products designed, manufactured, and sold by the Panasonic Group
- 2) Products outsourced to a third party by the Panasonic Group for design and manufacturing, and sold by the Panasonic Group with its trademark. This includes products purchased by the Panasonic Group from another company and sold as finished products.
- 3) Products contracted from a third party for design and manufacturing (excluding the components and materials specified by the third party)
- 4) Products used for sales promotion (giveaways, etc. provided to general consumers)
- 5) Packaging materials, including those used for product and for transportation (pallets, shrink packs etc.).

### (2) Application to Components and Materials

This rule applies to the components, materials, and other items used for the products mentioned in Section 2. (1) "Application to products" above.

- Components/materials (include electrical components, mechanical components, electro-mechanical components, semiconductors, printed circuit boards, enclosure components, packaging materials/components)
- Assembled components such as functional unit/module/board assemblies
- Accessories (for using products such as remote controls, AC adaptors, etc.)
- Auxiliary materials, etc. (tape, solder material, adhesive, etc.)
- Operating instructions, warranty certificates, other printed matters enclosed in products
- Repair or service parts
- Packaging materials used for transport/protection by component suppliers (the packaging materials with no possibility of transfer or contamination of the subject substance to the components even after direct contact such as returnable packages to be collected and reused by the supplier are not subject to these guidelines.)

## 3. Operations and Exemptions

- (1) Although these guidelines have been developed in accordance with the principal laws and regulations, they do not necessarily refer to all relevant regulations. All products shall fully comply with the treaties, laws, ordinances, industry guidelines, and other requirements effective at the time of product introduction in addition to these guidelines.
- (2) Although these guidelines shall be applied to all suppliers as a rule, the use of a customer's standards is also tolerated as an exception, in the case no agreement is obtained with these guidelines and the business unit decides to handle them as an exception.
- (3) The following case is exempted from application of the Management rank.
  - Chemical substances used for research and development (but applicable when commercialized)

#### **4. Establishment, Revision, and Abolition**

- (1) All items related to these guidelines are examined by the Rank Guidelines Working Group consisting of experts from domain companies, affiliated companies, and relevant departments, approved by the Product Chemical Substance Management Subcommittee and Technology Subcommittee, and authorized by the Director of Corporate Environmental Affairs 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 and Technology Subcommittee or the secretariat of the Corporate Environmental Affairs Division.
- (3) These guidelines shall be discussed and reviewed periodically (once a year) by the Rank Guidelines Working Group. In the following cases, however, the secretariat will review and obtain approval from the Product Chemical Substance Management Subcommittee and Technology Subcommittee for revisions.
  - When the need arises for reflecting a change in social trends such as law amendments
  - When the need arises for reflecting a progress in technological trends (alternative technologies, assessment technologies), improvement of threat-related data, exposure data, and risk assessment data, etc.

#### **5. Definition of Terms**

The terms used in these guidelines are based on the following definitions.

- (1) Panasonic Group "Chemical Substances Management Rank Guidelines (For Products)"

These guidelines rank as Prohibited substances the substances currently prohibited for contamination in products, those to be prohibited in the near future, and those to be voluntarily restricted for use in the Panasonic Group. These guidelines also rank Managed substances as those that affect environmental preservation from the viewpoint of human health, safety and hygiene, and adequate treatment, thereby requiring to clarify actual usage data. These guidelines only apply to the substances actually contaminated in products.
- (2) Level 1 Prohibited Substances

The substances listed below and those that may currently be used in the Panasonic Group products are in this rank. Any use of such substances must be halted immediately.

  - A substance contaminated in products that is prohibited by existing laws and regulations; or a substance where an upper limit of concentration is specified.
  - A substance that will be prohibited in product contamination by laws and regulations or where an upper limit of concentration will be specified within one year of the revision of these guidelines.
  - A substance that has been notified as prohibited in product contamination in Environmental Notices issued by the Panasonic Group.

Because this substance must not be contaminated in products, intentional use is prohibited; and if a regulated value exists, the concentration, including impurities, must be guaranteed to be below the regulated value (Intentional use is not permitted even if the contained quantity is less than the regulated value.).
- (3) Level 2 Prohibited Substances

Any of the substances shown below falls into this rank.

  - Substances other than those specified as the Level 1 Prohibited Substances that will be prohibited in product contamination after a certain period by a treaty, law, or

regulation.

- Substances that are prohibited in product contamination by the Panasonic Group prior to the effective period specified by a treaty, law, or regulation.
- Substances whose use is voluntarily restricted by the Panasonic Group. Any confirmed contamination of such substances must be remedied by means of an alternative based on the period or restricted condition specified by these guidelines.

(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. 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. In this case, the words "inclusion is known" refer to either "information that has been received from the material manufacturer indicating that the raw material contains the managed substance" or "data indicating that inclusion of the managed substances has been confirmed by some other means". Reporting the inclusion of "managed substances" in the packaging materials used by component manufacturers for transportation and protection is not necessary, except in cases required by law. (Nonuse of Level 1 Prohibited Substances requires reporting).

\*: Reporting is required when components subject to REACH regulations are exported to the EU along with packaging materials.

(5) Contained in Products

Refers to all cases of where the substances are contained in components and materials used in a product or packaging material. 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, contamination of such section needs to be regarded as prohibited).

(6) Intentional Use

Intentionally containing a certain substance during the process of manufacturing a product or component when continuous containment is desirable for obtaining certain characteristics, appearance, or quality.

(7) Impurity

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

(8) Regulated Value

Concentration of Prohibited substances not intentionally used but present as an impurity, and whose concentration shall be guaranteed in the components and materials delivered to the Panasonic Group and in the products shipped by the Panasonic Group.

(9) Controlled Value

Concentration of the Level 1 Prohibited Substances specified as never exceeded if there is no intentional use or contamination. If the contained concentration of the Prohibited substance as an impurity exceeds the controlled value, the supplier needs to be requested to carry out reanalysis, clarification of the reason for contamination, and reduction of the contained concentration to below the controlled value. The value is used for monitoring within the Panasonic Group (Controlled value is not intended for requesting the Non-use Warranty from the supplier).

(10) Contained Concentration

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

- Chemical compound, polymer alloy, metal alloy, etc.
- Concerning raw materials, such as paints, adhesives, inks, pastes, resin polymers, 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 formed or molded form for glass or ceramic materials)
- Single layer of painted, printed, or plated surface. In the case of multiple layers, the condition of each single layer.

## 6. Specified Managed Substances

### (1) Level 1 Prohibited Substances

Level 1 Prohibited Substances have been determined in accordance with the following representative Japanese and foreign laws (Table 1). In the components, materials, and the products shipped by the Panasonic Group, these substances must not be used intentionally, and the contained concentration as an impurity must be guaranteed to be below the regulated value shown in Table 1.

If the contained concentration exceeds the controlled value\* (the concentration considered not to be exceeded unless intentional use or contamination takes place) specified separately, intentional use or contamination is likely, and so the supplier is requested to reanalyze, clarify the reason for contamination, reduce the contained concentration to below the controlled value, and correct the issue.

\*: "List of Controlled Values of Prohibited Substances"

Japanese ... <http://panasonic.co.jp/eco/topics/suppliers/>

English, Chinese ... <http://panasonic.net/eco/topics/suppliers/>

The same requirement applies to recycled materials for contamination of Level 1 Prohibited Substances, and the impurity must be guaranteed to be less than the regulated value and limited to below the controlled value.

#### 1) Laws in Japan

- Type 1 Specified Chemical Substances (Substances prohibited for manufacturing and importing) determined by the "Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances" (hereafter Chem-sub Law)
- Manufacturing-prohibited Hazardous Substances as determined by the "Law on Industrial Safety and Hygiene" Article 55 (Ind-safety Law)
- Specified Substances (excluding HCFC) as determined by the "Law Concerning the Protection of the Ozone Layer through Control of Specified Substances and Others Measures" (Ozone Layer Law)
- Requirement for indicating the included specified chemical substances as determined by the "Law for Promotion of Effective Utilization of Resources"

#### 2) Laws in Foreign Countries

- Restriction of using the specified hazardous substances included in electrical and electronic equipment (hereafter called the RoHS Directive)
- EU REACH Annex XVII (Restrictions)
- "EU Parliament and Commission Directive on Packaging and Packaging Waste"
- Germany: "ChemG"
- Germany: "Consumer Goods Ordinance"
- Denmark: "Formalin Act"
- State of California: "Proposition 65"
- State of California: "Regulations on the generation of formaldehyde by plywood"

**Table 1 Substance Group List of Level 1 Prohibited Substances  
(Substance Group)**

It is required to guarantee that the substances are not intentionally used and the contained concentration as impurity is less than the regulated value.

Caution 1: The controlled value is determined separately from the regulated value for the purpose of control by the Panasonic Group. Refer to the "List of Controlled Values of Prohibited Substances" (URL below)

Caution 2: Some domain companies and affiliated companies of the Panasonic Group may set a value lower than a regulated value or controlled value according to the domain/affiliated companies' circumstances, such as on the request of a customer.

Caution 3: For the analysis method of the major substances, refer to the "Analysis Method of Level 1 Prohibited Substances" (URL below)  
Japanese ... <http://panasonic.co.jp/eco/topics/suppliers/>  
English, Chinese ... <http://panasonic.net/eco/topics/suppliers/>

Caution 4: 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. <sup>*3</sup>	Substance Group Name	Regulations by the Panasonic Group	Major Referenced Laws/Regulations
1	Polychlorinated biphenyls (PCBs)	Intentional use prohibited <sup>*5</sup>	Chem-sub Law, EU REACH Annex XVII (Restrictions), ChemG
2	Asbestos	Intentional use prohibited and concentration must be less than 1000 ppm <sup>*5</sup>	EU Hazardous EU REACH Annex XVII (Restrictions), ChemG, Ind-safety Law
3	Specified organic tin compounds (1) <sup>*7</sup> Bis (tributyltin) oxide Tri-substituted organostannic compounds (see Table 2-11)	Intentional use prohibited and tin concentration must be less than 1000 ppm <sup>*5</sup>	EU REACH Annex XVII (Restrictions), ChemG, Chem-sub Law
4	Specified organic tin compounds (2) <sup>*7</sup> Dibutyltin compounds (see Table 2-12)	Tin concentration <sup>*11</sup> must be less than 1000 ppm <sup>*5, 10</sup> (Exemptions are provided.)	EU REACH Annex XVII (Restrictions)
5	Specified organic tin compounds (3) <sup>*7</sup> Diocetyl tin compounds (see Table 2-13)	Intentional use prohibited and tin concentration <sup>*11</sup> must be less than 1000 ppm <sup>*5</sup> (The regulation scope is limited)	EU REACH Annex XVII (Restrictions)
6	Short-chain paraffin chloride (C10-13)	Intentional use prohibited <sup>*5</sup>	EU REACH Annex XVII (Restrictions)
7	Specified brominated flame-retardants (PBBs, PBDEs) (see Table 2-7)	Intentional use prohibited and concentration must be less than 1000 ppm <sup>*6</sup>	EU REACH Annex XVII (Restrictions)
8	Azo dye and pigment forming specified amines <sup>*2</sup> (see Table 2-1)	Intentional use prohibited and concentration must be less than 30 mg/kg (30 ppm) (as specified amine) (The regulation scope is limited)	German Consumer Goods Ordinance, ChemG, EU REACH Annex XVII (Restrictions)
9	Polychloronaphthalene (number of chlorine 3 or more)	Intentional use prohibited <sup>*5</sup>	Chem-sub Law

10	Cadmium and its compounds <sup>*2</sup> (see Table 2-2)	Resin (incl. rubber, film), paint, ink, pigment, dye	Intentional use prohibited and concentration must be less than 100 ppm (with no volatile components)	RoHS Directive, EU REACH Annex XVII (Restrictions), ChemG, Law for Promotion of Effective Utilization of Resources
		Packaging material <sup>*1</sup>	Intentional use prohibited and concentration must be less than 100 ppm	EU Packaging Directive
		Other than above	Intentional use prohibited and concentration must be less than 100 ppm (Exemptions are provided.)	RoHS Directive
11	Lead and its compounds <sup>*2</sup> (see Table 2-3)	Resin (including rubber, film), paint, ink, pigment, dye	Intentional use prohibited and concentration must be less than 300 ppm (with no volatile components)	Proposition 65
		Packaging material <sup>*1</sup>	Intentional use prohibited and concentration must be less than 100 ppm	EU Packaging Directive
		Other than above	Intentional use prohibited and concentration must be less than 1000 ppm (Exemptions are provided.)	RoHS Directive, ChemG, EU REACH Annex XVII (Restrictions), Law for Promotion of Effective Utilization of Resources
12	Hexavalent chromium compounds <sup>*2</sup> (see Table 2-4)	Packaging material <sup>*1</sup>	Intentional use prohibited and concentration must be less than 100 ppm	EU Packaging Directive
		Other than above	Intentional use prohibited and concentration must be less than 1000 ppm (Exemptions are provided.)	RoHS Directive, Law for Promotion of Effective Utilization of Resources
13	Mercury and its compounds <sup>*2</sup> (see Table 2-5)	Packaging material <sup>*1</sup>	Intentional use prohibited and concentration must be less than 100 ppm	EU Packaging Directive
		Other than above	Intentional use prohibited and concentration must be less than 1000 ppm (Exemptions are provided.)	RoHS Directive, Law for Promotion of Effective Utilization of Resources
14	Ozone-depleting substances (excluding HCFC)		Intentional use prohibited <sup>*8</sup>	Ozone Layer Law, Montreal Protocol US Regulations (Tax on ODC use)
15	Formaldehyde <sup>*2</sup> (see Table 2-6)		Aerial concentration must be less than 0.1 ppm (ChemG) <sup>*4</sup> Aerial concentration must be less than 0.15 mg/m <sup>3</sup> (Formalin Act) <sup>*4</sup> (The regulation scope is limited) Check the details of the regulations for regulated values in the state of California.	ChemG, Formalin Act (Denmark) State of California: Regulations on the generation of formaldehyde by plywood
16	Perfluorooctane sulfonate and its salts <sup>*2</sup> (see Table 2-8 <sup>*9</sup> )		Intentional use prohibited <sup>*5</sup> (Exemptions are provided.)	Stockholm Convention on Persistent Organic Pollutants (POPs), Chem-sub Law
17	Specified benzotriazole 2-(2H-1,2,3-benzotriazole-2-yl)-4,6-di-tert-butylphenol (see Table 2-9)		Intentional use prohibited <sup>*5</sup>	Chem-sub Law
18	Dimethylfumarate (see Table 2-10)		Intentional use prohibited and concentration must be less than 0.1 ppm <sup>*5</sup>	Commission Decision 2009/251/EC (emergency measures)

\*1: Requires to reduce total weight of heavy metals (lead, cadmium, mercury, and hexavalent chromium) in each homogeneous material (for example, resin, ink, paint) constructing the packaging materials to less than 100 ppm by weight.

- \*2: The substances with limited use as Level 1, as listed in Table 2. In the case of the lead used intentionally for electroless nickel plating, application of the condition, "Intentional use prohibited", is postponed for the time being and the maximum allowable lead concentration for electroless nickel plating shall be restricted to less than 800ppm.
- \*3: Serial numbers will be given from Ver. 8.
- \*4: Test methods shall comply with individual laws.
- \*5: If no intentional use is verified by tracing back the supply chain, the analysis for checking non-use of the subject substance is not required. If an impurity contamination is detected, the response needs to be determined separately."
- \*6: The regulated value 1000 ppm indicates the concentration of each substance of PBB and PBDE.
- \*7: Starting with Rank Guidelines Ver. 7, "trisubstituted stannanes" were added to the list of "bis (tributyltin) oxide (CAS No. 56-35-9)" Prohibited Substances. Starting with Ver. 8, "Specified organic tin compounds (2) Dibutyltin compounds" and "Specified organic tin compounds (3) Dioctyltin compounds" were added.
- \*8: In the Green Procurement Standards Ver. 5, "prohibition of the use of ozone-depleting substances (excluding HCFC) in production processes" was added (This refers to the prohibition of the relevant substances, even though 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)).
- \*9: Starting with Rank Guidelines Ver. 7, some of Exemptions were deleted (e.g. reflection-prevention coating material).
- \*10: If dibutyltin is intentionally used with a concentration of less than 1,000 ppm (subject to an exemption), we may ask for the submission of evidence (example: analysis data) required for guaranteeing that the concentration is less than the regulated value of 1,000 ppm.
- \*11: Tin concentration = (The specified 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 Table 6 for tin conversion coefficients of major specified organic tin compounds.

Table 2 Level 1 Prohibited Substances Regulated Items

Table 2-1

Substance Group Name: Azo dye and pigment forming specified amines																																															
Regulated items																																															
<ul style="list-style-type: none"> <li>• Items than can possibly have direct contact with human skin 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.</li> </ul> <p>No. 7 of the azo dye and pigment, the specified amines that must not be generated by reduction or decomposition are listed below.</p> <p style="text-align: center;"><b>Specified amines that must not be generated</b></p> <table border="1"> <thead> <tr> <th>CAS No.</th> <th>Substance name</th> </tr> </thead> <tbody> <tr><td>60-09-3</td><td>4-aminoazobenzene</td></tr> <tr><td>90-04-0</td><td>o-anisidine</td></tr> <tr><td>91-59-8</td><td>2-naphthylamine</td></tr> <tr><td>91-94-1</td><td>3,3-dichlorobenzidine</td></tr> <tr><td>92-67-1</td><td>4-aminodiphenyl</td></tr> <tr><td>92-87-5</td><td>Benzidine</td></tr> <tr><td>95-53-4</td><td>ortho-toluidine</td></tr> <tr><td>95-69-2</td><td>4-chloro-o-toluidine</td></tr> <tr><td>95-80-7</td><td>2,4-toluenediamine</td></tr> <tr><td>97-56-3</td><td>ortho-Aminoazotoluene</td></tr> <tr><td>99-55-8</td><td>5-nitro-o-toluidine</td></tr> <tr><td>101-14-4</td><td>4,4-methylene-bis-(2-chloroaniline)</td></tr> <tr><td>101-77-9</td><td>4,4-diaminodiphenylmethane</td></tr> <tr><td>101-80-4</td><td>4,4-oxydianiline</td></tr> <tr><td>106-47-8</td><td>p-chloroaniline</td></tr> <tr><td>119-90-4</td><td>3,3-dimethoxybenzidine</td></tr> <tr><td>119-93-7</td><td>3,3-dimethylbenzidine</td></tr> <tr><td>120-71-8</td><td>p-cresidine</td></tr> <tr><td>137-17-7</td><td>2,4,5-trimethylaniline</td></tr> <tr><td>139-65-1</td><td>4,4-thiodianiline</td></tr> <tr><td>615-05-4</td><td>2,4-diaminoanisole</td></tr> <tr><td>838-88-0</td><td>3,3-dimethyl-4,4-diaminodiphenylmethane</td></tr> </tbody> </table>		CAS No.	Substance name	60-09-3	4-aminoazobenzene	90-04-0	o-anisidine	91-59-8	2-naphthylamine	91-94-1	3,3-dichlorobenzidine	92-67-1	4-aminodiphenyl	92-87-5	Benzidine	95-53-4	ortho-toluidine	95-69-2	4-chloro-o-toluidine	95-80-7	2,4-toluenediamine	97-56-3	ortho-Aminoazotoluene	99-55-8	5-nitro-o-toluidine	101-14-4	4,4-methylene-bis-(2-chloroaniline)	101-77-9	4,4-diaminodiphenylmethane	101-80-4	4,4-oxydianiline	106-47-8	p-chloroaniline	119-90-4	3,3-dimethoxybenzidine	119-93-7	3,3-dimethylbenzidine	120-71-8	p-cresidine	137-17-7	2,4,5-trimethylaniline	139-65-1	4,4-thiodianiline	615-05-4	2,4-diaminoanisole	838-88-0	3,3-dimethyl-4,4-diaminodiphenylmethane
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Table 2-2

Substance Group Name: Cadmium and its compounds	
Regulated items	
<ul style="list-style-type: none"> <li>Prohibited in all applications except those in the exemptions shown below.</li> </ul> <p>[Applications and use examples]</p> <ul style="list-style-type: none"> <li>Stabilizer, pigment, dye, paint, ink used for plastics (including rubber, film)</li> <li>Phosphor, alloy, packaging materials, etc.</li> </ul>	
Exemptions	<ul style="list-style-type: none"> <li>Items listed in the Panasonic Group Exempted Items List <sup>*1</sup></li> <li>Uses as battery elements <sup>*2</sup> (by EU Battery Directive)</li> </ul>

\*1: The latest version of the Panasonic Group Exempted Items List is posted on the website of Panasonic Corporation.

Japanese ... <http://panasonic.co.jp/eco/topics/suppliers/>

English, Chinese ... <http://panasonic.net/eco/topics/suppliers/>

\*2: Batteries having no design as a finished product on the jacket or circuit component

Table 2-3

Substance Group Name: Lead and its compounds	
Regulated items	
<ul style="list-style-type: none"> <li>Prohibited in all applications except those in the exemptions shown below.</li> </ul> <p>[Applications and use examples]</p> <ul style="list-style-type: none"> <li>Paint, pigment, dye, ink</li> <li>Stabilizer in plastic (including rubber) material</li> <li>Solder coating on and packaging material of component external electrode, lead terminal, etc.</li> </ul>	
Exemptions	<ul style="list-style-type: none"> <li>Items listed in the Panasonic Group Exempted Items List <sup>*1</sup></li> <li>Uses as battery elements <sup>*2</sup> (by EU Battery Directive)</li> </ul>

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\*2: Batteries having no design as a finished product on the jacket or circuit component

Table 2-4

Substance Group Name: Hexavalent chromium compounds	
Regulated items	
<ul style="list-style-type: none"> <li>Prohibited in all applications except those in the exemptions shown below.</li> </ul> <p>[Applications and use examples]</p> <ul style="list-style-type: none"> <li>Rust-proof treatment</li> <li>Plastics, paint/pigment/ink</li> <li>Packaging material, etc.</li> </ul>	
Exemptions	<ul style="list-style-type: none"> <li>Items listed in the Panasonic Group Exempted Items List <sup>*1</sup></li> <li>Uses as battery elements <sup>*2</sup> (by EU Battery Directive)</li> </ul>

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\*2: Batteries having no design as a finished product on the jacket or circuit component

Table 2-5

Substance Group Name: Mercury and its compounds	
Regulated items	
<ul style="list-style-type: none"> <li>Prohibited in all applications except those shown in the exemptions.</li> </ul> <p>[Applications and use examples]</p> <ul style="list-style-type: none"> <li>Pigment, dye, paint, ink</li> <li>Indicator such as hour meter</li> <li>Relay, switch, sensor using mercury for electrical contact</li> <li>Harmonizer in plastics, packaging material, etc.</li> </ul>	
Exemptions	<ul style="list-style-type: none"> <li>Items listed in the Panasonic Group Exempted Items List <sup>*1</sup></li> <li>Uses as battery elements <sup>*2</sup> excluding mercury batteries (by EU Battery Directive)</li> </ul>

\*1: The latest version of the Panasonic Group Exempted Items List is posted on the website of Panasonic Corporation.

Japanese ... <http://panasonic.co.jp/eco/topics/suppliers/>

English, Chinese ... <http://panasonic.net/eco/topics/suppliers/>

\*2: Batteries having no design as a finished product on the jacket or circuit component

Table 2-6

Substance Group Name: Formaldehyde	
Regulated items	
<p>Wood products and parts using materials such as particle boards and MDF (medium density fiberboard) shall satisfy the following conditions (Ex. Speaker box, rack).</p> <ul style="list-style-type: none"> <li>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 domain company or affiliated company.</li> </ul>	

Table 2-7

Substance Group Name: Specified Brominated Flame-retardant (PBB, PBDE)	
Regulated items	
<ul style="list-style-type: none"> <li>All types of PBB and PBDE (Deca BDE (deca-bromo-diphenyl-ether) is subject to prohibition)</li> </ul>	

Table 2-8

Substance Group Name: Perfluorooctane sulfonate and its salts Molecular formula C <sub>8</sub> F <sub>17</sub> SO <sub>2</sub> X (X = other derivatives including OH, metallic salts, halogen compounds, amides, or polymers)	
Regulated items	
<ul style="list-style-type: none"> <li>Prohibited in all applications other than those shown in the Exemptions below (Prohibited in products shipped from the Panasonic Group on a global basis after June 27, 2008) Note: Use of "surface treatment less than 1 µg/m<sup>2</sup>" permitted by the EU Hazardous Substances Regulations is not acceptable, since it is regarded as intentional use.</li> </ul>	
Exemptions	<ul style="list-style-type: none"> <li>Photoresist for photolithography processes or</li> <li>Photo-coating material for printing originals on film or paper</li> </ul>

Table 2-9

Substance Group Name: Specified benzotriazole (2- (2H-1,2,3-benzotriazole-2-yl) -4, 6-di-tert-butylphenol)
Regulated items
<ul style="list-style-type: none"> <li>• Prohibited in all applications</li> </ul> <p>[Applications and use examples]</p> <ul style="list-style-type: none"> <li>• UV absorption agent for plastic resin</li> <li>• Plastic building materials</li> <li>• Sublimation transfer type photo-coating resin</li> </ul>

Table 2-10

Substance Group Name: Dimethylfumarate
Regulated items
<ul style="list-style-type: none"> <li>• Prohibited in all applications</li> </ul> <p>[Applications and use examples]</p> <ul style="list-style-type: none"> <li>• Moisture-proof agent, mildew-proof agent</li> </ul>

Table 2-11

Substance Group Name: Specified organic tin compounds (1) Bis (tributyltin) oxide, trisubstituted stannanes
Regulated items
<ul style="list-style-type: none"> <li>• Prohibited in all applications</li> </ul> <p>[Applications and use examples]</p> <p>Bis (tributyltin) oxide: Paint, pigment, moisture-proof agent</p> <p>Trisubstituted stannanes: Paint, pigment, stabilizer</p>

Table 2-12

Substance Group Name: Specified organic tin compounds (2) Dibutyltin compounds	
Regulated items	
<ul style="list-style-type: none"> <li>• All uses other than listed in the exempted items are to be prohibited (To be prohibited from October 2011)</li> </ul> [Applications and use examples] <ul style="list-style-type: none"> <li>• Resin stabilizers</li> <li>• Hardening catalysts for polyurethane or silicone</li> <li>• Glass covering material</li> <li>• Rubber modifier</li> </ul>	
Exemptions	<ul style="list-style-type: none"> <li>• One-component and two-component room temperature vulcanisation sealants (RTV-1 and RTV-2) and adhesives</li> <li>• Paints and coatings containing DBT compounds as catalysts when applied on articles</li> <li>• Soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC</li> <li>• Outdoor rainwater pipes, gutters and fittings, as well as covering material for roofing and façades</li> <li>• All uses less than 1,000 ppm (of tin) (the denominator of 1,000 ppm is the mass of the homogeneous material)</li> </ul> <p>(These exemptions are scheduled to be prohibited from October 2014; details will be decided later in view of substitution status.)</p>

\*1: Continuously molded items with a specified cross-section shape

Table 2-13

Substance Group Name: Specified organic tin compounds (3) Dioctyltin compounds	
Regulated items	
(To be prohibited from October 2011) <ul style="list-style-type: none"> <li>• Textile articles intended to come into contact with the skin</li> <li>• Wall and floor coverings</li> <li>• Two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)</li> </ul> (Intentional use is included in restricted scope even if less than 1,000 ppm)	

(2) Level 2 Prohibited Substances

Refer to substances other than those specified as the Level 1 Prohibited Substances, substances whose use is being progressively prohibited at a certain period by a treaty, law, or regulation, substances prohibited to be used in products by the Panasonic Group prior to a period specified by a treaty, law, or regulation, and substances restricted for use on a voluntary basis by the Panasonic Group. If detected, the use of the substances must be substituted based on the period or restriction conditions specified by these guidelines.

Table 3 Level 2 Prohibited Substances List (Substance Group)

Substance Group	Applicable Law	Use Prohibited Date
Poly-vinyl chloride (PVC), its mixtures, its copolymers (see Table 4-11)	Panasonic Group's voluntary restriction	(See Table 4-1)

Table 4 Level 2 Prohibited Substances Regulated Items  
Table 4-1

Substance: Polyvinylchloride (PVC), its mixtures, its copolymers	
Regulated Items	
<p>1. Use of vinyl chloride resin in new products is regulated as follows.</p> <p>(1) Internal wiring in electrical and electronic products. Complete the material substitution:</p> <ul style="list-style-type: none"> <li>• For domestic new products in Japan by the end of March 2009</li> <li>• For global new products by the end of March 2011.</li> </ul> <p>(2) Promote material substitution for applications other than internal wiring (power cords, etc.).</p> <p>2. Packaging materials used for Panasonic Group products and accessories, etc. that come with products</p> <p>The method of handling restricted individual components and materials shall comply with the request by each business unit of our company. The substitute PVC material shall be halogen-free (excluding fluorine) and shall not contain red phosphorus as a rule.</p>	
Exemptions	<ul style="list-style-type: none"> <li>• Applications impossible to maintain quality or safety without it, materials specified by law or regulation, materials specified by customer, etc.</li> <li>• Resin binder containing PVC-vinyl acetate copolymer (paint, ink, etc.) (Until a substitute technology is established)</li> </ul>

(3) 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. In this case, the words "inclusion is known" refers to either "information that has been received from the material manufacturer indicating that the raw material contains the managed substance" or "data indicating that inclusion of the managed substances has been confirmed by some other means". Reporting the inclusion of "managed substances" in the packaging materials used by component manufacturers for transportation and protection is not necessary, except in cases\* required by law. (Nonuse of Level 1 Prohibited Substances requires reporting).

\*: Reporting is required when components subject to REACH regulations are exported to the EU along with packaging materials.

The managed substances in these guidelines are equivalent to the substances listed in the legal regulations, industry standards etc. shown in Table 5. These substances are equivalent to the applicable substances in the "JAMP 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 5. 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
Japan Industrial Safety and Health Law (Substances that are prohibited from manufacture)	Excluding the prohibited substances specified in these guidelines
Japan Poisonous and Deleterious Substances Control Law (Specified toxic substances)	
EU CLP Regulation (Regulation on Classification, Labeling and Packaging of Substances and Mixtures) Annex VI (CMR-Cat 1, 2) (former EU 67/548/EEC)	
EU REACH Annex XVII (Restrictions) [excluding CLP Annex VI, Table 3.2, CMR-Cat. 1, 2] (former EU 76/769/EEC)	Excluding the prohibited substances specified in these guidelines
EU REACH Regulation Candidate substances for authorization (Substances of Very High Concern (SVHC))	
ESIS PBT (Substances that fulfill determination criteria for PBT) (European Chemical Substances Information System)	
GADSL (Automotive industry) Global Automobile Declarable Substances List	Excluding the prohibited substances specified in these guidelines
JIG (Electrical & electronic industry) Joint Industry Guide	Excluding the prohibited substances specified in these guidelines

(4) Applicable Substances List Specified by These Guidelines

- A list of sample substances considered "prohibited substances" is shown in Table 6. 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 sample substances considered "prohibited substances" and "managed substances" as specified in these guidelines, in accordance with legal regulations and industry standards.  
"JAMP List of Target Substances under Management: Instruction Manual"  
"JAMP Declarable Substances Reference List (latest version)"  
\* Reference addresses of the materials and list:  
Japanese ...<http://www.jamp-info.com/list>  
English, Chinese ...<http://www.jamp-info.com/english/list>

(5) Reference

- In order to check the applicability of the "managed substances", the following search software may be used. However, this software is only considered an auxiliary means of checking the applicability of the substance. Even if the input supporting tool does not indicate applicability, the substance still needs to be reported if it is known to be subject to legal regulations.  
"JAMP AIS Input Supporting Tool (latest version)"\*  
"JAMP MSDSplus Input Supporting Tool (latest version)"\*  
\* Acquisition of the materials and tools:  
Japanese ...<http://www.jamp-info.com/ais>  
<http://www.jamp-info.com/msds>  
English, Chinese ...<http://www.jamp-info.com/english/ais>  
<http://www.jamp-info.com/english/msds>

Table 6

Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws				RoHS	Tin conversion coefficient
						Class 1 Specified Chemicals in Chem-sub Law	Provision Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG	German Consumer Goods Ordinance	EU REACH Annex XVII (76/769/EEC)				
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
	This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.														
Yes	Organic halogenized compounds	PCBs	1336-36-3	POLYCHLORINATEDBIPHENYL	PCB	Yes			Yes	Exceeding 50 mg/kg, preparations, products			Yes		
Yes	Organic halogenized compounds	PCBs	61788-33-8	POLYCHLORINATEDTERPHENYL	PCT				Yes	Exceeding 50 mg/kg, preparations, products			Yes		
Yes	Others	Asbestos	1332-21-4	Asbestos, unspecified					Yes	Exceeding 0.1 wt%, preparations and products incl. preparations and the substance			Yes	Market release prohibited for products intentionally incl. the substance	
Yes	Others	Asbestos	12172-73-5	Amosite			Yes		Yes	Exceeding 0.1 wt%, preparations and products incl. preparations and the substance			Yes	Market release prohibited for products intentionally incl. the substance	
Yes	Others	Asbestos	12001-29-5	Chrysotile					Yes	Exceeding 0.1 wt%, preparations and products incl. preparations and the substance			Yes	Market release prohibited for products intentionally incl. the substance	
Yes	Others	Asbestos	12001-28-4	Crocidolite			Yes		Yes	Exceeding 0.1 wt%, preparations and products incl. preparations and the substance			Yes	Market release prohibited for products intentionally incl. the substance	
Yes	Others	Asbestos	77536-66-4	ACTINOLITE					Yes	Exceeding 0.1 wt%, preparations and products incl. preparations and the substance			Yes	Market release prohibited for products intentionally incl. the substance	
Yes	Others	Asbestos	77536-67-5	ANTHOPHYLLITE					Yes	Exceeding 0.1 wt%, preparations and products incl. preparations and the substance			Yes	Market release prohibited for products intentionally incl. the substance	
Yes	Others	Asbestos	77536-68-6	TREMOLITE					Yes	Exceeding 0.1 wt%, preparations and products incl. preparations and the substance			Yes	Market release prohibited for products intentionally incl. the substance	
Yes	Metal and its compounds	Specified organic tin compounds (1)	56-35-9	Bis(tri-n-butyltin)oxide		Yes, antimold, antiseptic agents, paints									0.199
Yes	Metal and its compounds	Specified organic tin compounds (1)	1066-44-0	Bromotrimethylstannane										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.487
Yes	Metal and its compounds	Specified organic tin compounds (1)	1066-45-1	Trimethyltin chloride										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.596
Yes	Metal and its compounds	Specified organic tin compounds (1)	1067-52-3	Tributyltin methoxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.370
Yes	Metal and its compounds	Specified organic tin compounds (1)	1067-97-6	Tributyltin hydroxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.387
Yes	Metal and its compounds	Specified organic tin compounds (1)	1118-03-2	Trimethyltin azide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.577
Yes	Metal and its compounds	Specified organic tin compounds (1)	1118-14-5	Trimethyltin acetate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.533
Yes	Metal and its compounds	Specified organic tin compounds (1)	13302-06-2	tributyltin methanesulphonate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.308
Yes	Metal and its compounds	Specified organic tin compounds (1)	13331-52-7	Tributyltin Acrylate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.329
Yes	Metal and its compounds	Specified organic tin compounds (1)	14275-57-1	(Z)-5,5,12,12-tetrabutyl-7,10-dioxo-6,11-dioxo-5,12-distannahexadec-8-ene										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.171
Yes	Metal and its compounds	Specified organic tin compounds (1)	1461-22-9	Tributyltin chloride; tributylchlorostannane										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.365
Yes	Metal and its compounds	Specified organic tin compounds (1)	1461-23-0	Tributyltin bromide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.321
Yes	Metal and its compounds	Specified organic tin compounds (1)	1529-30-2	Triethyltin phenoxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.397
Yes	Metal and its compounds	Specified organic tin compounds (1)	1803-12-9	Triphenyltin dimethyldithiocarbamate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.252
Yes	Metal and its compounds	Specified organic tin compounds (1)	18380-71-7	Stannane, triphenyl[(2,2,4,4-tetramethyl-oxopentyl)oxy]-										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.234
Yes	Metal and its compounds	Specified organic tin compounds (1)	18380-72-8	Stannane, [(2,3-dimethyl-2-(1-methylethyl)-oxobutyl)oxy]triphenyl-										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.234
Yes	Metal and its compounds	Specified organic tin compounds (1)	1907-13-7	Triethyltin acetate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.448
Yes	Metal and its compounds	Specified organic tin compounds (1)	1983-10-4	Tributyltin fluoride										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.384
Yes	Metal and its compounds	Specified organic tin compounds (1)	20369-63-5	Tributyltin dimethyldithiocarbamate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.289
Yes	Metal and its compounds	Specified organic tin compounds (1)	2155-70-6	Tributyltin methacrylate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.316
Yes	Metal and its compounds	Specified organic tin compounds (1)	2179-92-2	tributyltin cyanide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.376
Yes	Metal and its compounds	Specified organic tin compounds (1)	2279-76-7	Tripropyltin chloride										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.419
Yes	Metal and its compounds	Specified organic tin compounds (1)	24124-25-2	Tributyltin linoleate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.208
Yes	Metal and its compounds	Specified organic tin compounds (1)	25711-26-6	Butanedioic acid, 2-methylene-, 1,4-bis(tributylstannyl) ester; Bis(tributyltin)itaconate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)	0.168

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					Tin conversion coefficient		
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law		ChemG			German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)	
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
				This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.													
Yes	Metal and its compounds	Specified 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											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.201
Yes	Metal and its compounds	Specified organic tin compounds (1)	27147-18-8	Tributyltin cinnamate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.272
Yes	Metal and its compounds	Specified organic tin compounds (1)	2767-61-5	Tripopyl tin bromide											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.362
Yes	Metal and its compounds	Specified organic tin compounds (1)	2943-86-4	Triethyltin iodide											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.357
Yes	Metal and its compounds	Specified organic tin compounds (1)	3090-35-5	Tributyl(oleoyloxy)stannane											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.208
Yes	Metal and its compounds	Specified organic tin compounds (1)	3090-36-6	Tributyltin laurate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.243
Yes	Metal and its compounds	Specified organic tin compounds (1)	31732-71-5	(R*,S*)-8,9-dibromo-5,5,12,12-tetrabutyl-7,10-dioxo-6,11-dioxo-5,12-distannahexadecane											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.139
Yes	Metal and its compounds	Specified organic tin compounds (1)	3267-78-5	Tripopyl tin acetate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.387
Yes	Metal and its compounds	Specified organic tin compounds (1)	33550-22-0	Tributyltin gamma-chlorobutyrate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.288
Yes	Metal and its compounds	Specified organic tin compounds (1)	3644-32-4	P-NITROPHENOXYTRIBUTYL TIN											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.277
Yes	Metal and its compounds	Specified organic tin compounds (1)	3644-37-9	(2-biphenyloxy)tributyltin											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.258
Yes	Metal and its compounds	Specified organic tin compounds (1)	36631-23-9	tributyltin naphthenate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.274
Yes	Metal and its compounds	Specified organic tin compounds (1)	379-52-2	Triphenyltin fluoride											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.322
Yes	Metal and its compounds	Specified organic tin compounds (1)	4027-14-9	Tributyltin nonanoate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.265
Yes	Metal and its compounds	Specified organic tin compounds (1)	4027-17-2	tributyltin cyanate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.357
Yes	Metal and its compounds	Specified organic tin compounds (1)	4027-18-3	2-Butenoic acid 4-oxo-4-[(tributylstannyl)oxy]but-2-enoic acid											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.293
Yes	Metal and its compounds	Specified organic tin compounds (1)	4154-35-2	Tripopyl tin methacrylate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.356
Yes	Metal and its compounds	Specified organic tin compounds (1)	4342-30-7	Tri-n-butyl tin salicylate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.278
Yes	Metal and its compounds	Specified organic tin compounds (1)	4342-36-3	Tributyltin benzoate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.289
Yes	Metal and its compounds	Specified organic tin compounds (1)	4638-25-9	Trimethyltin thiocyanate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.535
Yes	Metal and its compounds	Specified organic tin compounds (1)	47672-31-1	Stannane, [(1-oxododecyloxy)triphenyl-											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.228
Yes	Metal and its compounds	Specified organic tin compounds (1)	4782-29-0	Bis(tributyltin)phthalate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.160
Yes	Metal and its compounds	Specified organic tin compounds (1)	5035-67-6	Tributyltin 2-ethylhexanoate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.274
Yes	Metal and its compounds	Specified organic tin compounds (1)	53404-82-3	tributyltin isopropylsuccinate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.264
Yes	Metal and its compounds	Specified organic tin compounds (1)	53466-85-6	Tributyltin monopropylene glycol maleate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.256
Yes	Metal and its compounds	Specified organic tin compounds (1)	56-24-6	Trimethyltin hydroxide											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.657
Yes	Metal and its compounds	Specified organic tin compounds (1)	56-36-0	Tributyltin acetate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.340
Yes	Metal and its compounds	Specified organic tin compounds (1)	56573-85-4	Tributyltin											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.365
Yes	Metal and its compounds	Specified organic tin compounds (1)	57808-37-4	Tripopyl tin laurate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.265
Yes	Metal and its compounds	Specified organic tin compounds (1)	5847-52-9	tributyltin chloroacetate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.310
Yes	Metal and its compounds	Specified organic tin compounds (1)	63869-87-4	Trimethyltin sulphate											Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.455

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					Tin conversion coefficient		
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law		ChemG			German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)	
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
Yes		Metal and its compounds	Specified organic tin compounds (1)	639-58-7	Triphenyl tin chloride										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.308
Yes		Metal and its compounds	Specified organic tin compounds (1)	6454-35-9	(E)-5,5,12,12-tetrabutyl-7,10-dioxo-6,11-dioxo-5,12-distannahexadec-8-ene										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.171
Yes		Metal and its compounds	Specified organic tin compounds (1)	6517-25-5	Tributyltin sulfamate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.307
Yes		Metal and its compounds	Specified organic tin compounds (1)	67772-01-4	Copolymer of alkyl(c=8) acrylate, methyl methacrylate and tributyltin methacrylate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.180*
Yes		Metal and its compounds	Specified organic tin compounds (1)	681-99-2	Tributyltin isothiocyanate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.357
Yes		Metal and its compounds	Specified organic tin compounds (1)	688-73-3	Tributyltin (and salts and esters)										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.408
Yes		Metal and its compounds	Specified organic tin compounds (1)	69226-47-7	tributyltin undecylenate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.257
Yes		Metal and its compounds	Specified organic tin compounds (1)	7094-94-2	Triphenyltinchloroacetate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.268
Yes		Metal and its compounds	Specified organic tin compounds (1)	7342-38-3	trisobutyltin chloride; chloro(trisobutyl)stannane										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.365
Yes		Metal and its compounds	Specified organic tin compounds (1)	7342-45-2	Tripropyltin iodide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.317
Yes		Metal and its compounds	Specified organic tin compounds (1)	7342-47-4	Tributyltin iodide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.285
Yes		Metal and its compounds	Specified organic tin compounds (1)	73927-91-0	Tributyltin iodoacetate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.250
Yes		Metal and its compounds	Specified organic tin compounds (1)	73927-92-1	Tripropyltin iodoacetate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.274
Yes		Metal and its compounds	Specified organic tin compounds (1)	73927-93-2	tributyltin o-iodobenzoate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.221
Yes		Metal and its compounds	Specified organic tin compounds (1)	73927-95-4	Tributyltin .beta.-iodopropionate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.243
Yes		Metal and its compounds	Specified organic tin compounds (1)	73927-97-6	Tributyltin isooctylthioacetate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.241
Yes		Metal and its compounds	Specified organic tin compounds (1)	73940-88-2	tributyltin p-iodobenzoate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.221
Yes		Metal and its compounds	Specified organic tin compounds (1)	73940-89-3	Tributyltin .alpha.-(2,4,5-trichlorophenoxy) propionate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.213
Yes		Metal and its compounds	Specified organic tin compounds (1)	752-58-9	1,3,5-tris(tributyltin)-S-triazine-2,4,6-trione										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.119
Yes		Metal and its compounds	Specified organic tin compounds (1)	76-87-9	Triphenyltin hydroxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.323
Yes		Metal and its compounds	Specified organic tin compounds (1)	811-73-4	Trimethyltin iodide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.408
Yes		Metal and its compounds	Specified organic tin compounds (1)	85409-17-2	Tributyltin naphthenate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.420
Yes		Metal and its compounds	Specified organic tin compounds (1)	892-20-6	Triphenyltin hydride										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.338
Yes		Metal and its compounds	Specified organic tin compounds (1)	894-09-7	Triphenyltin iodide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.249
Yes		Metal and its compounds	Specified organic tin compounds (1)	900-95-8	Triphenyltinacetate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.290
Yes		Metal and its compounds	Specified organic tin compounds (1)	94850-90-5	Stannane, [(1-oxoundecyl)oxy]triphenyl-										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.222
Yes		Metal and its compounds	Specified organic tin compounds (1)	994-31-0	Triethyltin chloride										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.492
Yes		Metal and its compounds	Specified organic tin compounds (1)	994-32-1	Triethyltin hydroxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.533
Yes		Metal and its compounds	Specified organic tin compounds (1)	1262-21-1	Bis(triphenyltin) oxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.166
Yes		Metal and its compounds	Specified organic tin compounds (1)	13435-05-7	Tris(tributyltin) phosphate; 5,5,9,9-Tetrabutyl-7-((tributylstannyloxy)-6,8-dioxo-7-phospha-5,9-distannatridecane-7-oxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.123

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

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws					Tin conversion coefficient			
						Class 1 Specified Chemicals in Chem-sub Law	Prohibition Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG			German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)		RoHS
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
Yes		Metal and its compounds	Specified organic tin compounds (1)	15082-85-6	Tribenzyltin hydroxide; Tribenzylhydroxystannane										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.290
Yes		Metal and its compounds	Specified organic tin compounds (1)	1954-36-5	Phthalic acid bis(triphenyltin(IV)) salt; [1,2-Phenylene bis(carboxyloxy)] bistrphenyl stannane										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.137
Yes		Metal and its compounds	Specified organic tin compounds (1)	3644-29-9	Triphenyl tin laurate; [(1-Oxododecyl)oxy]triphenylstannane										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.216
Yes		Metal and its compounds	Specified organic tin compounds (1)	3644-38-0	Tributyltin pentachlorophenolate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.214
Yes		Metal and its compounds	Specified organic tin compounds (1)	4756-53-0	Tributyltin terephthalate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.160
Yes		Metal and its compounds	Specified organic tin compounds (1)	5847-51-8	Tri-n-butyl tin formate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.354
Yes		Metal and its compounds	Specified organic tin compounds (1)	668-34-8	Triphenyltin										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.339
Yes		Metal and its compounds	Specified organic tin compounds (1)	682-00-8	Tributyltin ethoxide										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.354
Yes		Metal and its compounds	Specified organic tin compounds (1)	68725-14-4	Tri-n-butyltin trifluoromethanesulfonic acid										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.270
Yes		Metal and its compounds	Specified organic tin compounds (1)	910-06-5	Triphenyltin benzoate; Triphenylstannyl benzoate										Exceeding 0.1wt% of concentration in an article or any part (since July 2010)		0.252
Yes		Halogenized organic compounds	Short-chane psraffin chloride(C10-13)	85535-84-8	Short-chane psraffin chloride(C10-13)									Yes	Market release prohibited for products intentionally incl. the substance		
Yes		Halogenized organic compounds	PBBs and PBDEs	59536-65-1 (67774-32-7)	Polybrominated biphenyls	PBB								Yes	Prohibited for incl. the 0.1wt% or more substance in molded products	Yes	
Yes		Halogenized organic compounds	PBBs and PBDEs	40088-47-9	Tetrabromodiphenyl ether	PBDE	Yes									Yes	
Yes		Halogenized organic compounds	PBBs and PBDEs	32534-81-9	Pentabromodiphenyl ether	PBDE	Yes							Yes	Prohibited for incl. the 0.1wt% or more substance in molded products	Yes	
Yes		Halogenized organic compounds	PBBs and PBDEs	36483-60-0	Hexabromodiphenyl ether	PBDE	Yes									Yes	
Yes		Halogenized organic compounds	PBBs and PBDEs	68928-80-3	Heptabromodiphenyl ether	PBDE	Yes									Yes	
Yes		Halogenized organic compounds	PBBs and PBDEs	32536-52-0	Octabromodiphenyl Ether	PBDE								Yes	Prohibited for incl. the 0.1wt% or more substance in molded products	Yes	
Yes		Halogenized organic compounds	PBBs and PBDEs	63936-56-1	Nonabromodiphenyl ether	PBDE										Yes	
Yes		Halogenized organic compounds	PBBs and PBDEs	1163-19-5	Decabromodiphenyl ether	PBDE										Yes	
Yes		Others	azo dyes and pigments forming specified amines	JAMP-SN0011	azo dyes and pigments forming specified amines							Yes	Colored daily goods for contacting skins	min 30 mg/kg contained			
Yes		Halogenized organic compounds	polychloronaphthalene	1321-65-9	Trichloronaphthalene		Yes, lubricant, cutting oil, paints										
Yes		Halogenized organic compounds	polychloronaphthalene	1335-88-2	Tetrachloronaphthalene		Yes, lubricant, cutting oil, paints										
Yes		Halogenized organic compounds	polychloronaphthalene	1321-64-8	Pentachloronaphthalene		Yes, lubricant, cutting oil, paints										
Yes		Halogenized organic compounds	polychloronaphthalene	2234-13-1	Octachloronaphthalene		Yes, lubricant, cutting oil, paints										
Yes		Others	ozon depleting substneces	75-71-8	Dichlorodifluoromethane	CF <sub>2</sub> Cl <sub>2</sub>	CFC-12		Yes								
Yes		Others	ozon depleting substneces	354-58-5 76-13-1	Trichlorotrifluoroethane	C <sub>2</sub> F <sub>3</sub> Cl <sub>3</sub>	CFC-113		Yes								
Yes		Others	ozon depleting substneces	75-69-4	Trichlorofluoromethane	CFC <sub>3</sub>	CFC-11		Yes								
Yes		Others	ozon depleting substneces	28605-74-5 76-12-0	tetrachlorodifluoroethane	C <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub>	CFC-112		Yes								
Yes		Others	ozon depleting substneces	1320-37-2 76-14-2	dichlorotetrafluoroethane	C <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub>	CFC-114		Yes								
Yes		Others	ozon depleting substneces	76-15-3	Chloropentafluoroethane	C <sub>2</sub> F <sub>5</sub> Cl	CFC-115		Yes								
Yes		Others	ozon depleting substneces	75-72-9	Chlorotrifluoroethane	CF <sub>3</sub> Cl	CFC-13		Yes								
Yes		Others	ozon depleting substneces	354-56-3	Pentachlorofluoroethane	C <sub>2</sub> FCl <sub>5</sub>	CFC-111		Yes								
Yes		Others	ozon depleting substneces	135401-87-5	Heptachlorofluoropropane	C <sub>3</sub> FCl <sub>7</sub>	CFC-211		Yes								

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws					RoHS	Tin conversion coefficient	
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 55, the Safety Law	Ozone Layer Law	ChemG		German Consumer Goods Ordinance					EU REACH Annex XVII (76/769/EEC)
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
Yes	Others	ozone depleting substnces	3182-26-1	Hexachlorodifluoropropane	C3F2Cl6	CFC-212			Yes							
Yes	Others	ozone depleting substnces	2354-06-5	Pentachlorotrifluoropropane	C3F3Cl5	CFC-213			Yes							
Yes	Others	ozone depleting substnces	29255-31-0 2268-46-4	Tetrachlorotetrafluoropropane	C3F4Cl4	CFC-214			Yes							
Yes	Others	ozone depleting substnces	1599-41-3 1652-81-9	Trichloropentafluoropropane	C3F5Cl3	CFC-215			Yes							
Yes	Others	ozone depleting substnces	661-97-2	Dichlorohexafluoropropane	C3F6Cl2	CFC-216			Yes							
Yes	Others	ozone depleting substnces	422-86-6	Heptafluoropropyl chloride	C3F7Cl	CFC-217			Yes							
Yes	Others	ozone depleting substnces	1511-62-2	Bromodifluoromethane	CHF2Br	HBFC-22B1			Yes							
Yes	Others	ozone depleting substnces	1868-53-7	Dibromodifluoromethane	CHFBr2				Yes							
Yes	Others	ozone depleting substnces	373-52-4	Bromofluoromethane	CH2FBr				Yes							
Yes	Others	ozone depleting substnces	306-80-9	Tetrabromofluoroethane	C2HFBr4				Yes							
Yes	Others	ozone depleting substnces	----	Tribromodifluoroethane	C2HF2Br3				Yes							
Yes	Others	ozone depleting substnces	354-04-1	Dibromotrifluoroethane	C2HF3Br2				Yes							
Yes	Others	ozone depleting substnces	124-72-1	Bromotetrafluoroethane	C2HF4Br				Yes							
Yes	Others	ozone depleting substnces	----	Tribromofluoroethane	C2H2FBr3				Yes							
Yes	Others	ozone depleting substnces	75-82-1	Dibromodifluoroethane	C2H2F2Br2				Yes							
Yes	Others	ozone depleting substnces	421-06-7	1,1,1-Trifluoro-2-bromoethane					Yes							
Yes	Others	ozone depleting substnces	358-97-4	Dibromofluoroethane	C2H3FBr2				Yes							
Yes	Others	ozone depleting substnces	----	Bromodifluoroethane	C2H3F2Br				Yes							
Yes	Others	ozone depleting substnces	762-49-2	Bromofluoroethane	C2H4FBr				Yes							
Yes	Others	ozone depleting substnces	----	Hexabromofluoropropane	C3HFBr6				Yes							
Yes	Others	ozone depleting substnces	----	Tribromotetrafluoropropane	C3HF4Br3				Yes							
Yes	Others	ozone depleting substnces	----	Tribromotrifluoropropane	C3H2F3Br3				Yes							
Yes	Others	ozone depleting substnces	431-78-7	Dibromopentafluoropropane	C3HF5Br2				Yes							
Yes	Others	ozone depleting substnces	2252-79-1	Bromohexafluoropropane	C3HF6Br				Yes							
Yes	Others	ozone depleting substnces	----	Pentabromodifluoropropane	C3HF2Br5				Yes							
Yes	Others	ozone depleting substnces	----	Tetrabromotrifluoropropane	C3HF3Br4				Yes							
Yes	Others	ozone depleting substnces	----	Pentabromofluoropropane	C3H2FBr5				Yes							
Yes	Others	ozone depleting substnces	----	Tetrabromodifluoropropane	C3H2F2Br4				Yes							
Yes	Others	ozone depleting substnces	----	Dibromotetrafluoropropane	C3H2F4Br2				Yes							
Yes	Others	ozone depleting substnces	460-88-8	Bromopentafluoropropane	C3H2F5Br				Yes							
Yes	Others	ozone depleting substnces	----	Tetrabromofluoropropane	C3H3FBr4				Yes							
Yes	Others	ozone depleting substnces	70192-80-2	Tribromodifluoropropane	C3H3F2Br3				Yes							
Yes	Others	ozone depleting substnces	70192-83-5	Dibromotrifluoropropane	C3H3F3Br2				Yes							
Yes	Others	ozone depleting substnces	679-84-5	Bromotetrafluoropropane	C3H3F4Br				Yes							
Yes	Others	ozone depleting substnces	75372-14-4	Tribromofluoropropane	C3H4FBr3				Yes							
Yes	Others	ozone depleting substnces	460-25-3	Dibromodifluoropropane	C3H4F2Br2				Yes							

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws					Tin conversion coefficient		
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG		German Consumer Goods Ordinance		EU REACH Annex XVII (76/769/EEC)		RoHS	
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
		<b>This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.</b>														
Yes	Others	ozon depleting substnecs	51584-26-0	Dibromofluoropropane	C3H5FBr2			Yes								
Yes	Others	ozon depleting substnecs	421-46-5	bromotrifluoropropane	C3H4F3Br			Yes								
Yes	Others	ozon depleting substnecs	353-59-3	Bromochlorodifluoromethane	CF2BrCl	halon-1211		Yes								
Yes	Others	ozon depleting substnecs	74-97-5	Bromochloromethane	CH2BrCl			Yes								
Yes	Others	ozon depleting substnecs	75-63-8	Bromotrifluoromethane	CF3Br	halon-1301		Yes								
Yes	Others	ozon depleting substnecs	----	Bromodifluoropropane	C3H5F2Br			Yes								
Yes	Others	ozon depleting substnecs	352-91-0	Bromofluoropropane	C3H6FBr			Yes								
Yes	Others	ozon depleting substnecs	124-73-2	1,2-Dibromotetrafluoroethane	C2F4Br2	halon-2402		Yes								
Yes	Others	ozon depleting substnecs	56-23-5	Carbon tetrachloride				Yes								
Yes	Others	ozon depleting substnecs	71-55-6	1,1,1-trichloroethane				Yes								
Yes	Others	formaldehyde	50-00-0	formaldehyde					Yes	Wooden products or furniture discharging 0.1 ppm or more gas						
Yes	Metal and its compounds	Cadmium and its compounds	7440-43-9	Cadmium												Yes
Yes	Metal and its compounds	Cadmium and its compounds	10108-64-2	Cadmium chloride												Yes
Yes	Metal and its compounds	Cadmium and its compounds	1306-19-0	Cadmium oxide												Yes
Yes	Metal and its compounds	Cadmium and its compounds	10325-94-7	Cadmium Nitrate												Yes
Yes	Metal and its compounds	Cadmium and its compounds	513-78-0	Cadmium carbonate												Yes
Yes	Metal and its compounds	Cadmium and its compounds	1306-23-6	Cadmium sulfide												Yes
Yes	Metal and its compounds	Cadmium and its compounds	10124-36-4	Cadmium sulfate												Yes
Yes	Metal and its compounds	Cadmium and its compounds	12214-12-9	Cadmium selenide sulfide												Yes
Yes	Metal and its compounds	Cadmium and its compounds	1306-24-7	Cadmium Selenide												Yes
Yes	Metal and its compounds	Cadmium and its compounds	1306-25-8	Cadmium Telluride												Yes
Yes	Metal and its compounds	Cadmium and its compounds	21041-95-2	Cadmium Hydroxide												Yes
Yes	Metal and its compounds	Cadmium and its compounds	2223-93-0	Cadmium Stearate												Yes
Yes	Metal and its compounds	Cadmium and its compounds	JAMP-SN0016	Cadmium compounds (group)												Yes
Yes	Metal and its compounds	Lead and its compounds	7439-92-1	Lead												Yes
Yes	Metal and its compounds	Lead and its compounds	6080-56-4	Lead(II) acetate trihydrate												Yes
Yes	Metal and its compounds	Lead and its compounds	7446-27-7	Lead(II) phosphate												Yes
Yes	Metal and its compounds	Lead and its compounds	12069-00-0	Lead selenide												Yes
Yes	Metal and its compounds	Lead and its compounds	1309-60-0	Lead(IV) oxide												Yes
Yes	Metal and its compounds	Lead and its compounds	1314-41-6	Lead oxide												Yes
Yes	Metal and its compounds	Lead and its compounds	1344-36-1	Lead subcarbonate												Yes
Yes	Metal and its compounds	Lead and its compounds	7758-97-6	Lead(II) chromate												Yes
Yes	Metal and its compounds	Lead and its compounds	12202-17-4	Lead oxide sulfate												Yes
Yes	Metal and its compounds	Lead and its compounds	1319-46-6	Lead(II) carbonate, basic				Yes	Prohibited to intentionally be used for paints		Yes			Prohibited to intentionally be used for paints	Yes	
Yes	Metal and its compounds	Lead and its compounds	598-63-0	Lead carbonate				Yes	Prohibited to intentionally be used for paints		Yes			Prohibited to intentionally be used for paints	Yes	
Yes	Metal and its compounds	Lead and its compounds	7446-14-2	Lead (II) Sulfate				Yes	Prohibited to intentionally be used for paints		Yes			Prohibited to intentionally be used for paints	Yes	
Yes	Metal and its compounds	Lead and its compounds	1072-35-1	Lead stearate												Yes

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Prohibited Sub Level 1 Prohibited Sub Level 2	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					Tin conversion coefficient		
							Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law		ChemG	German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)		RoHS	
							Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
		This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.																
Yes		Metal and its compounds	Lead and its compounds	12060-00-3	lead titanate												Yes	
Yes		Metal and its compounds	Lead and its compounds	12060-01-4	Lead (II) zirconate												Yes	
Yes		Metal and its compounds	Lead and its compounds	1311-11-1	Lead Hydroxide												Yes	
Yes		Metal and its compounds	Lead and its compounds	1317-36-8	Lead (II) oxide												Yes	
Yes		Metal and its compounds	Lead and its compounds	301-04-2	Lead acetate												Yes	
Yes		Metal and its compounds	Lead and its compounds	10099-74-8	Lead (II) nitrate												Yes	
Yes		Metal and its compounds	Lead and its compounds	1314-87-0	Lead (II) Sulfide												Yes	
Yes		Metal and its compounds	Lead and its compounds	JAMP-SN0023	lead compounds [group]												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	1344-38-3	basic lead chromate	Pigment Orange 21											Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	1344-37-2	Lead Chromate	Pigment Yellow 34											Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	13530-68-2	Dichromic acid												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	7778-50-9	Potassium dichromate												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	10588-01-9	Sodium dichromate												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	1333-82-0	Chromium trioxide												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	10294-40-3	Barium Chromate												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	12053-18-8	Copper chromite												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	7789-06-2	strontium chromate												Yes	
Yes		Metal and its compounds	Hexavalent chromium compounds	JAMP-SN0019	Chromium (VI) compounds												Yes	
Yes		Metal and its compounds	Mercury and its compounds	7439-97-6	Mercury												Yes	
Yes		Metal and its compounds	Mercury and its compounds	7487-94-7	mercury bichloride												Yes	
Yes		Metal and its compounds	Mercury and its compounds	21908-53-2	Mercury (II) oxide												Yes	
Yes		Metal and its compounds	Mercury and its compounds	15829-53-5	Mercurous Oxide												Yes	
Yes		Metal and its compounds	Mercury and its compounds	593-74-8	Dimethyl mercury												Yes	
Yes		Metal and its compounds	Mercury and its compounds	10112-91-1	Mercury chloride												Yes	
Yes		Metal and its compounds	Mercury and its compounds	33631-63-9	Mercury(II) chloride												Yes	
Yes		Metal and its compounds	Mercury and its compounds	7783-35-9	Mercury(II) sulfate												Yes	
Yes		Metal and its compounds	Mercury and its compounds	10045-94-0	Mercuric nitrate												Yes	
Yes		Metal and its compounds	Mercury and its compounds	1344-48-5	Mercuric sulfide												Yes	
Yes		Metal and its compounds	Mercury and its compounds	JAMP-SN0024	Mercury compounds [group]												Yes	
Yes		Others	Perfluorooctane sulfonate and its salts	307-35-7	1-Octanesulphonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-		Yes							Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more			
Yes		Others	Perfluorooctane sulfonate and its salts	376-14-7	2-Propenoic acid, 2-methyl-, 2-[ethyl((heptafluorooctyl)sulphonyl)amino]ethyl ester		Yes							Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more			
Yes		Others	Perfluorooctane sulfonate and its salts	383-07-3	2-Propenoic acid, 2-[butyl((heptafluorooctyl)sulphonyl)amino]ethyl ester		Yes							Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more			
Yes		Others	Perfluorooctane sulfonate and its salts	423-82-5	2-Propenoic acid, 2-[ethyl((heptafluorooctyl)sulphonyl)amino]ethyl ester		Yes							Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more			
Yes		Others	Perfluorooctane sulfonate and its salts	423-86-9	1-Octanesulphonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-2-propenyl-		Yes							Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more			

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws					Tin conversion coefficient		
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG		German Consumer Goods Ordinance		EU REACH Annex XVII (76/769/EEC)		RoHS	
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
				This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.												
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	1652-63-7	1-Propananium, 3-[[[heptadecafluorooctyl)sulphonyl]amino]-N,N,N-trimethyl-, iodide		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-hydroxyethyl)-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	1763-23-1	1-Octanesulphonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	1869-77-8	Glycine, N-ethyl-N-[[heptadecafluorooctyl)sulphonyl]-, ethyl ester		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	2250-98-8	1-Octanesulphonamide, N,N',N"-[[phosphinylidynetris(oxy-2,1-ethanedyl)]tris[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-hydroxyethyl)-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	2991-50-6	Glycine, N-ethyl-N-[[heptadecafluorooctyl)sulphonyl]-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	2991-51-7	Glycine, N-ethyl-N-[[heptadecafluorooctyl)sulphonyl]-, potassium salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-(phosphonoxy)ethyl]-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	3871-50-9	Glycine, N-ethyl-N-[[heptadecafluorooctyl)sulphonyl]-, sodium salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	14650-24-9	2-Propenoic acid, 2-methyl-, 2-[[[heptadecafluorooctyl)sulphonyl]methylamino]ethyl ester		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-propenyl-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	25268-77-3	2-Propenoic acid, 2-[[[heptadecafluorooctyl)sulphonyl]methylamino]ethyl ester		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	29117-08-6	Poly(oxy-1,2-ethanedyl), .alpha.-[2-(ethyl[[heptadecafluorooctyl)sulphonyl]amino]ethyl]-.omega.-hydroxy		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					Tin conversion coefficient	
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG	German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)			RoHS
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
				This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.												
Yes	Others	Perfluorooctane sulfonate and its salts	30295-51-3	1-Octanesulphonamide, N-[3-(dimethyloxidamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	30381-98-7	1-Octanesulphonamide, N,N'-[phosphinobis(oxy-2,1-ethanediyl)]bis[N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	38006-74-5	1-Propanaminium, 3-[[[(heptadecafluorooctyl)sulphonyl]amino]-N,N',N'-trimethyl-, chloride		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	52550-45-5	Poly(oxy-1,2-ethanediyl), a-[2-[[[(heptadecafluorooctyl)sulphonyl]propylamino]ethyl]-ω-hydroxy-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-octanesulphonic acid (1:1)		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	57589-85-2	Benzoic acid, 2,3,4,5-tetrachloro-6-[[[3-[[[(heptadecafluorooctyl)sulphonyloxy]phenyl]amino]carbonyl]-, monopotassium salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	58920-31-3	2-Propenoic acid, 4-[[[(heptadecafluorooctyl)sulphonyl]methylamino]butyl ester		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	61577-14-8	2-Propenoic acid, 2-methyl-, 4-[[[(heptadecafluorooctyl)sulphonyl]methylamino]butyl ester		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-(trimethoxysilyl)propyl]-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-(trichlorosilyl)propyl]-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-(phosphonoxy)ethyl]-, diammonium salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-, monohydrochloride		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	68081-83-4	Carbamic acid, (4-methyl-1,3-phenylene)bis-, bis[2-[ethyl]([perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl ester		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	68298-11-3	1-Propanaminium, 3-[[[(heptadecafluorooctyl)sulphonyl]([3-sulphopropyl]amino)-N-(2-hydroxyethyl)-N,N-dimethyl-, hydroxide, inner salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	68329-56-6	2-Propenoic acid, eicosyl ester, polymer with 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl] 2-propenoate, hexadecyl 2-propenoate, 2-[methyl]([nonafluorobutyl)sulphonyl]amino]ethyl 2-propenoate, 2-[methyl]([pentadecafluoroheptyl)sulphonyl]amino]ethyl 2-propenoate, 2-[methyl]([tridecafluoroheptyl)sulphonyl]amino]ethyl 2-propenoate, 2-[methyl]([undecafluoropentyl)sulphonyl]amino]ethyl 2-propenoate and octadecyl 2-propenoate		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws					Tin conversion coefficient	
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG		German Consumer Goods Ordinance				EU REACH Annex XVII (76/769/EEC)
Prohibited Sub Level 1	Prohibited Sub Level 2	This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.				Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
Yes	Others	Perfluorooctane sulfonate and its salts	68310-75-8	1-Propanaminium, 3-[[[(heptadecafluorooctyl)sulphonyl]amino]-N,N,N',N'-trimethyl-, iodide, ammonium salt		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	68541-80-0	2-Propenoic acid, polymer with 2-[ethyl[(heptadecafluorooctyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-propenoate		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	68555-90-8	2-Propenoic acid, butyl ester, polymer with 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl 2-propenoate, 2-[methyl[(nonafluorobutyl)sulphonyl]amino]ethyl 2-propenoate, 2-[methyl[(pentadecafluoroheptyl)sulphonyl]amino]ethyl 2-propenoate, 2-[methyl[(tridecafluoroheptyl)sulphonyl]amino]ethyl 2-propenoate and 2-[methyl[(undecafluoropentyl)sulphonyl]amino]ethyl 2-propenoate		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	68555-91-9	2-Propenoic acid, 2-methyl-, 2-[ethyl[(heptadecafluorooctyl)sulphonyl]amino]ethyl ester, polymer with 2-[ethyl[(nonafluorobutyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(pentadecafluoroheptyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(tridecafluoroheptyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(undecafluoropentyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	68555-92-0	2-Propenoic acid, 2-methyl-, 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl ester, polymer with 2-[methyl[(nonafluorobutyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate, 2-[methyl[(pentadecafluoroheptyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate, 2-[methyl[(tridecafluoroheptyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate, 2-[methyl[(undecafluoropentyl)sulphonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	68608-14-0	Sulphonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl)-, reaction products with 1,1'-methylenebis[4-isocyanatobenzene]		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	68649-26-3	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-, reaction products with N-ethyl-1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-1-butanedisulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-1-heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-1-hexanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-1-pentanesulfonamide, polymethylenepolyphenylene isocyanate and stearyl alc.		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Prohibited Sub Level 1 Prohibited Sub Level 2	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws					Tin conversion coefficient			
							Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 55, the Safety Law	Ozone Layer Law	ChemG			German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)		RoHS
							Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
Yes		Others	Perfluorooctane sulfonate and its salts	68867-60-7	2-Propenoic acid, 2-[[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2-[methyl]((nonafluorobutyl)sulfonyl)amino]ethyl 2-propenoate, 2-[methyl]((pentadecafluoroheptyl)sulfonyl)amino]ethyl 2-propenoate, 2-[methyl]((tridecafluoroheptyl)sulfonyl)amino]ethyl 2-propenoate, 2-[methyl]((undecafluoropentyl)sulfonyl)amino]ethyl 2-propenoate and alpha-(1-oxo-2-propenyl)-omega-methoxypoly(oxy-1,2-ethanediy)		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes		Others	Perfluorooctane sulfonate and its salts	68877-32-7	2-Propenoic acid, 2-methyl-, 2-[ethyl]((heptadecafluorooctyl)sulphonyl)amino]ethyl ester, polymer with 2-[ethyl]((nonafluorobutyl)sulphonyl)amino]ethyl 2-methyl-2-propenoate, 2-[ethyl]((pentadecafluoroheptyl)sulphonyl)amino]ethyl 2-methyl-2-propenoate, 2-[ethyl]((tridecafluoroheptyl)sulphonyl)amino]ethyl 2-methyl-2-propenoate, 2-[ethyl]((undecafluoropentyl)sulphonyl)amino]ethyl 2-methyl-2-propenoate and 2-methyl-1,3-butadiene		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes		Others	Perfluorooctane sulfonate and its salts	68891-96-3	Chromium, diquatetrachloro[.mu.-[N-ethyl-N-[[[(heptadecafluorooctyl)sulphonyl] glycinato-.kappa.O;.kappa.O]]-.mu.-hydroxybis(2-methylpropano)]di-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes		Others	Perfluorooctane sulfonate and its salts	68909-15-9	2-Propenoic acid, eicosyl ester, polymers with branched octyl acrylate, 2-[[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl acrylate, 2-[methyl]((nonafluorobutyl)sulfonyl)amino]ethyl acrylate, 2-[methyl]((pentadecafluoroheptyl)sulfonyl)amino]ethyl acrylate, 2-[methyl]((tridecafluoroheptyl)sulfonyl)amino]ethyl acrylate, 2-[methyl]((undecafluoropentyl)sulfonyl)amino]ethyl acrylate, polyethylene glycol acrylate Me ether and stearyl acrylate		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes		Others	Perfluorooctane sulfonate and its salts	68958-61-2	Poly(oxy-1,2-ethanediy), .alpha.-[2-[ethyl]((heptadecafluorooctyl)sulphonyl)amino]ethyl]-.omega.-methoxy-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes		Others	Perfluorooctane sulfonate and its salts	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	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more			
Yes		Others	Perfluorooctane sulfonate and its salts	70776-36-2	2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 1,1-dichloroethene, 2-[[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, N-(hydroxymethyl)-2-propenamido, 2-[methyl]((nonafluorobutyl)sulfonyl)amino]ethyl 2-propenoate, 2-[methyl]((pentadecafluoroheptyl)sulfonyl)amino]ethyl 2-propenoate, 2-[methyl]((tridecafluoroheptyl)sulfonyl)amino]ethyl 2-propenoate and 2-[methyl]((undecafluoropentyl)sulfonyl)amino]ethyl 2-propenoate		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes		Others	Perfluorooctane sulfonate and its salts	71463-78-0	Phosphonic acid, [3-[ethyl]((heptadecafluorooctyl)sulphonyl)amino]propyl]-		Yes							Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more			

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws			Overseas Laws					Tin conversion coefficient		
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG		German Consumer Goods Ordinance		EU REACH Annex XVII (76/769/EEC)		RoHS	
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
Yes	Others	Perfluorooctane sulfonate and its salts	71463-80-4	Phosphonic acid, [3-[[ethyl]heptadecafluorooctyl)sulphonyl]amino]propyl-, diethyl ester		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	71487-20-2	2-Propenoic acid, 2-methyl-, methylester, polymer with ethenylbenzene, 2-[[heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, 2-[[methyl]nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, 2-[[methyl]pentafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[[methyl]tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate, 2-[[methyl]undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and 2-propenoic acid		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	91081-99-1	Sulphonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with epichlorohydrin, adipates (esters)		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	92265-81-1	Ethanaminium, N,N,N-trimethyl-2-[[2-methyl-1-oxo-2-propenyl]oxy]-, chloride, polymer with 2-ethoxyethyl 2-propenoate, 2-[[heptadecafluorooctyl)sulphonyl]methylamino]ethyl 2-propenoate and oxiranylmethyl 2-methyl-2-propenoate		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	94133-90-1	1-Propanesulphonic acid, 3-[[3-(dimethylamino)propyl]heptadecafluorooctyl)sulphonyl]amino]-2-hydroxy-, monosodium salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	94313-84-5	Carbamic acid, [5-[[2-[[heptadecafluorooctyl)sulphonyl]methylamino]ethoxy]carbonyl]amino]-2-methylphenyl]-, 9-octadecenyl ester, (Z)-		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	98999-57-6	Sulphonamides, C7-8-alkane, perfluoro, N-methyl-N-2-[[1-oxo-2-propenyl]oxy]ethyl], polymers with 2-ethoxyethyl acrylate, glycidyl methacrylate and N,N,N-trimethyl-2-[[2-methyl-1-oxo-2-propenyl]oxy]ethanaminium chloride		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	127133-66-8	2-Propenoic acid, 2-methyl-, polymers with Bu methacrylate, lauryl methacrylate and 2-[[methyl]perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl methacrylate		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	129813-71-4	Sulphonamides, C4-8-alkane, perfluoro, N-methyl-N-(oxiranylmethyl)		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	148240-78-2	Fatty acids, C18-unsatd., trimers, 2-[[heptadecafluorooctyl)sulphonyl]methylamino]ethyl esters		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	148684-79-1	Sulphonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl, reaction products with 1,6-diisocyanatohexane homopolymer and ethylene glycol		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	160901-25-7	Sulphonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl), reaction products with 2-ethyl-1-hexanol and polymethylenepolyphenylene isocyanate		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	178094-69-4	1-Octanesulphonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-, potassium salt		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					RoHS	Tin conversion coefficient
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG	German Consumer Goods Ordinance	EU REACH Annex XVII (76/769/EEC)					
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
				This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.												
Yes	Others	Perfluorooctane sulfonate and its salts	178535-22-3	Sulphonamides, C4-8-alkane, perfluoro, N-ethyl-N-(hydroxyethyl)-, polymers with 1,1'-methylenebis[4-isocyanatobenzene] and polymethylenepolyphenylene isocyanate, 2-ethylhexyl esters, Me Et ketone oxime-blocked		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-chlorine-sulphur chloride (S2Cl2) reaction products chlorides		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	192662-29-6	Sulphonamides, C4-8-alkane, perfluoro, N-[3-(dimethylamino)propyl], reaction products with acrylic acid		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	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-octanesulphonic acid (1:1)		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306973-46-6	Fatty acids, linseed-oil, dimers, 2-[[[(heptadecafluorooctyl)sulphonyl]methylamino]ethyl esters		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306973-47-7	Sulphonamides, C4-8-alkane, perfluoro, N-(hydroxyethyl)-N-methyl-, reaction products with 12-hydroxystearic acid and 2,4-TDI, ammonium salts		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306974-19-6	Sulphonamides, C4-8-alkane, perfluoro, N-methyl-N-[(3-octadecyl-2-oxo-5-oxazolidinyl)methyl]		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306974-28-7	Siloxanes and Silicones, di-Me, mono[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]group - terminated, polymers with 2-[methyl(perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl acrylate and stearyl methacrylate		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306974-45-8	Sulphonic acids, C6-8-alkane, perfluoro, compounds with polyethylene-polypropylene glycol bis(2-aminopropyl) ether		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306974-63-0	Fatty acids, C18-unsatd., dimers, 2-[methyl(perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl esters		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306975-56-4	Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and N,N',2-tris(6-isocyanatohexyl)imidodicarbonic diamide, reaction products with N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-1-octanesulfonamide and N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-1-heptanesulfonamide, compds. with triethylamine		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	
Yes	Others	Perfluorooctane sulfonate and its salts	306975-57-5	Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] and 1,2,3-propanetriol, reaction products with N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-1-octanesulfonamide and N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-1-heptanesulfonamide, compds. with morpholine		Yes								Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more	

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					Tin conversion coefficient
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG	German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)		
Prohibited Sub Level 1	Prohibited Sub Level 2	This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.				Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
Yes	Others	Perfluorooctane sulfonate and its salts	306975-62-2	2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with 2- [methyl(perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl acrylate and vinylidene chloride		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306975-84-8	Poly(oxy-1,2-ethanediyl), alpha-hydro-omega-hydroxy-, polymer with 1,6-disocyanatohexane, N-(hydroxyethyl)-N-methyl perfluoro C4-8-alkane sulphonamides-		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306975-85-9	2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with N-(hydroxymethyl)-2-propenamide, 2-[methyl(perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl methacrylate, stearyl methacrylate and vinylidene chloride		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306976-25-0	1-Hexadecanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-, bromide, polymers with Bu acrylate, Bu methacrylate and 2-[methyl(perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl acrylate		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306976-55-6	2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with 2,4-disocyanato-1-methylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 2-propenoic acid, N-ethyl-N-(hydroxyethyl)perfluoro-C4-8-alkanesulphonamides-blocked		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306977-58-2	2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymers with acrylic acid, 2-[methyl(perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl acrylate and propylene glycol monoacrylate, hydrolysed, compounds with 2,2-(methylimino)bis[ethanol]		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306978-04-1	2-Propenoic acid, butyl ester, polymers with acrylamide, 2-[methyl(perfluoro-C4-8-alkyl)sulphonyl]amino]ethyl acrylate and vinylidene chloride		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306978-65-4	Hexane, 1,6-diisocyanato-, homopolymer, N-(hydroxyethyl)-N-methyl perfluoro-C4-8-alkane sulphonamides- and stearyl alc.-blocked		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306979-40-8	Poly(oxy-1,2-ethanediyl), alpha-[2-(methylamino)ethyl]-, omega-[(1,1,3,3-tetramethylbutyl)phenoxy]-, N-[(perfluoro-C4-8-alkyl)sulphonyl]		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	306980-27-8	Sulphonamides, C4-8-alkane, perfluoro, N,N'-[1,6-hexanediylbis(2-oxo-3,5-oxazolidinediyl)methylene]bis[N-methyl-		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Perfluorooctane sulfonate and its salts	JAMP-SN0035	Perfluorooctane sulfonates(PFOS) C8F17SO2X (X = OH, Metal salt (O-M+), halide, amide, and other derivatives including polymers) [group]		Yes						Yes	parts: 1,000 ppm or more, surface coating: 1ug/m2 or more		
Yes	Others	Specified benzotriazole	3846-71-7	Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)-		Yes									
Yes	Others	dimethylfumarate	624-49-7	dimethylfumarate											
Yes	Others	Specified organic tin compounds (2): DBTs	1002-53-5	Dibutyl stannane								Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.505
Yes	Others	Specified organic tin compounds (2): DBTs	10192-92-4	Dibutyltin dimaleate								Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.256
Yes	Others	Specified organic tin compounds (2): DBTs	1067-33-0	Dibutyltin diacetate								Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.338
Yes	Others	Specified organic tin compounds (2): DBTs	1185-81-5	Dibutyltin dilauryl mercaptide								Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.187
Yes	Others	Specified organic tin compounds (2): DBTs	13173-04-1	3,8,10-Trioxo-9-stannatetradeca-5,12-dien-14-oiic acid, 9,9-dibutyl-4,7,11-trioxo-, ethyl ester, (Z,Z)-								Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.229

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					Tin conversion coefficient	
						Class 1 Specified Chemicals in Chem-sub Law	Provision Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law	ChemG	German Consumer Goods Ordinance	EU REACH Annex XVII (76/769/EEC)		RoHS			
Prohibited Sub Level 1	Prohibited Sub Level 2	This list shows examples of applicable substances. Any substance not included in this list but classified as a "prohibited substance" shall be reported.				Applicable	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable
Yes	Others	Specified organic tin compounds (2): DBTs	13323-62-1	Dibutyltin dioleate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.149
Yes	Others	Specified organic tin compounds (2): DBTs	13323-63-2	Dibutyltin dipalmitate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.160
Yes	Others	Specified organic tin compounds (2): DBTs	14214-24-5	Dibutyltin disalicylate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.234
Yes	Others	Specified organic tin compounds (2): DBTs	15546-11-9	Di-n-butyltin bis(methyl maleate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.242
Yes	Others	Specified organic tin compounds (2): DBTs	15546-12-0	Dibutyltin di(2-ethylhexyl maleate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.173
Yes	Others	Specified organic tin compounds (2): DBTs	15546-16-4	Di-n-butyltin di(monobutyl)maleate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.206
Yes	Others	Specified organic tin compounds (2): DBTs	163206-28-8	Tin, dibutyl(1,2-ethanediamine-N,N')bis(monoisooctyl 2-butenedioato-O')									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.159
Yes	Others	Specified organic tin compounds (2): DBTs	17523-06-7	Bis (acetato) dibutyltin									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.338
Yes	Others	Specified organic tin compounds (2): DBTs	18253-54-8	Tin, dichloro[29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, (OC-6-12)-									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.169
Yes	Others	Specified organic tin compounds (2): DBTs	19704-60-0	Dibutyltin dihexanoate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.256
Yes	Others	Specified 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	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.217
Yes	Others	Specified organic tin compounds (2): DBTs	22673-19-4	Tin, dibutylbis(2,4-pentanedionato-O,O')									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.275
Yes	Others	Specified organic tin compounds (2): DBTs	25168-24-5	Dibutyltin bis(isooctyl mercaptoacetate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.186
Yes	Others	Specified organic tin compounds (2): DBTs	26636-01-1	Dibutyltin S,S'-bis(isooctyl mercaptoacetate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.214
Yes	Others	Specified organic tin compounds (2): DBTs	26761-46-6	Dibutyltin di(isooctyl 3-mercaptopropionate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.178
Yes	Others	Specified organic tin compounds (2): DBTs	2781-09-1	Dibutyltin bis(octylthioglycolate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.186
Yes	Others	Specified organic tin compounds (2): DBTs	2781-10-4	Di-n-butyltin di-2-ethylhexanoate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.229
Yes	Others	Specified organic tin compounds (2): DBTs	29881-72-9	Dibutyltin bis(oleyl maleate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.123
Yes	Others	Specified organic tin compounds (2): DBTs	32011-18-0	Acetate, S,S'-bis(octylmercapto-, dibutyltin									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.186
Yes	Others	Specified organic tin compounds (2): DBTs	32011-19-1	Tin, dibutylbis(methyl 3-mercaptopropanoato-O,S)-									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.252
Yes	Others	Specified organic tin compounds (2): DBTs	33466-31-8	5,7,12-Trioxa-6-stannatetracosaa-2,9-dienoic acid, 6,6-dibutyl-4,8,11-trioxo-, dodecyl ester, (Z,Z)-									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.148
Yes	Others	Specified organic tin compounds (2): DBTs	3349-36-8	Dibutyltin dibutoxide									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.313
Yes	Others	Specified organic tin compounds (2): DBTs	4731-77-5	Dibutyltin dioctanoate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.229
Yes	Others	Specified organic tin compounds (2): DBTs	51287-83-3	Dibutyltin bis(lauryl .beta.-mercaptopropionate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.152
Yes	Others	Specified organic tin compounds (2): DBTs	53202-61-2	Dibutyltin bis(2-ethylhexyl-3-mercaptopropionate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.178
Yes	Others	Specified organic tin compounds (2): DBTs	54581-65-6	Dibutylbis(ethyl 3-oxobutyrato-O',O3)tin									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.242
Yes	Others	Specified organic tin compounds (2): DBTs	5847-54-1	Dibutyltin dibenzoate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.250
Yes	Others	Specified organic tin compounds (2): DBTs	5847-55-2	Dibutyltin distearate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.148
Yes	Others	Specified organic tin compounds (2): DBTs	61947-30-6	Diisobutyltin oxide									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.477
Yes	Others	Specified organic tin compounds (2): DBTs	67924-24-7	Tin, dibutylbis(N,N-diethylethanamine)difluoro-									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.251
Yes	Others	Specified organic tin compounds (2): DBTs	68239-46-3	Tin, dibutyl[(N-(carboxymethyl)-N-(2-hydroxyethyl)glycinato(2-)]-									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.291
Yes	Others	Specified organic tin compounds (2): DBTs	683-18-1	Dibutyltin dichloride									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.391
Yes	Others	Specified organic tin compounds (2): DBTs	7324-74-5	Dibutyltin bis(benzyl maleate)									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.185
Yes	Others	Specified organic tin compounds (2): DBTs	75113-37-0	Dibutyltin hydrogen borate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.405
Yes	Others	Specified organic tin compounds (2): DBTs	77-58-7	Dibutyltin dilaurate									Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.188

Table 6

## Chemical Substances Management List (Level 1 and Level 2 prohibited)

Rank	Category	substance group	CAS No.	substance name	Synonyms	Japan's Laws				Overseas Laws					Tin conversion coefficient		
						Class 1 Specified Chemicals in Chem-sub Law	Production Prohibited Chemicals in Article 56, the Safety Law	Ozone Layer Law		ChemG	German Consumer Goods Ordinance			EU REACH Annex XVII (76/769/EEC)		RoHS	
Prohibited Sub Level 1	Prohibited Sub Level 2					Applicable, use limited and its threshold	Applicable, use limited and its threshold	Applicable	Applicable	Use limited and its threshold	Applicable	Use limited	Threshold	Applicable	Use limited and its threshold	Applicable	
Yes	Others	Specified organic tin compounds (2): DBTs	78-04-6	Dibutyltin maleate										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.342
Yes	Others	Specified organic tin compounds (2): DBTs	78-06-8	Dibutyltin mercaptopropionate										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.352
Yes	Others	Specified organic tin compounds (2): DBTs	78-20-6	Dibutyltin mercaptoacetate										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.367
Yes	Others	Specified organic tin compounds (2): DBTs	818-08-6	Dibutyltin oxide										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.477
Yes	Others	Specified organic tin compounds (2): DBTs	85391-79-3	Dibutyltin linoleate										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.150
Yes	Others	Specified organic tin compounds (2): DBTs	85702-74-5	Dibutyltin isooctanoate										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.229
Yes	Others	Specified organic tin compounds (2): DBTs	95873-60-2	Dibutyltin linolenate										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.151
Yes	Others	Specified organic tin compounds (2): DBTs	25168-21-2	Dibutyltin bis(isooctylmaleate)										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.173
Yes	Others	Specified 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	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.186
Yes	Others	Specified organic tin compounds (2): DBTs	28660-63-1	Dibutyltin dibutyrate; Bis(butanoyloxy)dibutylstannane										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.292
Yes	Others	Specified organic tin compounds (2): DBTs	59963-28-9	Dibutyltin diisostearate; Dibutylbis[(1-oxoisooctadecyl)oxy]stannane										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.148
Yes	Others	Specified organic tin compounds (3): DOTs	870-08-6	Diocetyl tin oxide; Diocetylloxostannane										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.329
Yes	Others	Specified organic tin compounds (3): DOTs	15571-58-1	Diocetyl tin bis(2-ethylhexyl thioglycolate)										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.158
Yes	Others	Specified organic tin compounds (3): DOTs	16091-18-2	Diocetyl tin maleate										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.259
Yes	Others	Specified organic tin compounds (3): DOTs	26401-97-8	Diocetyl tin										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.158
Yes	Others	Specified organic tin compounds (3): DOTs	33568-99-9	Diocetyl tin bis(isooctyl maleate)										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.148
Yes	Others	Specified organic tin compounds (3): DOTs	3542-36-7	Diocetyl tin dichloride										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.285
Yes	Others	Specified organic tin compounds (3): DOTs	22205-30-7	Bis(dodecylthio)diocetyl stannane; Diocetyl tin bis(dodecylmercaptide)										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.159
Yes	Others	Specified organic tin compounds (3): DOTs	3648-18-8	Diocetyl tin dilaurate; Diocetyl bis(1-oxododecyl)oxy stannane										Yes	Exceeding 0.1wt% of concentration in an article or any part (since Jan. 2012)		0.160
Yes	Halogenized organic compounds	PVC and its mixtures, copolymer	9002-86-2	PVC and its mixture													
Yes	Halogenized organic compounds	PVC and its mixtures, copolymer	9003-22-9	Vinyl chloride/vinyl acetate copolymer													

## 7. Major Changes from Version 7.1 to Version 8

- (1) Level 1 Prohibited Substances.
- Changed substance group names of “Bis (tributyltin) oxide” and “Tri-substituted organostannic compounds,” which were already specified as Level 1 Prohibited Substances, to “Specified organic tin compounds (1).” In addition, corrected the regulated value of the applicable substance group to “Tin concentration” in accordance with the EU REACH Annex XII (restricted substances).
  - Included “Dibutyltin compounds” and “Diocetyl tin compounds,” which used to be specified as Level 2 Prohibited Substances, in Level 1 Prohibited Substances as substance groups named “Specified organic tin (2)” and “Specified organic tin (3).”
  - With regard to substance groups for which exemptions are provided, added descriptions in the “Regulations by the Panasonic Group” columns.
- (2) Level 2 Prohibited Substances
- Deleted “Dibutyltin” and “Diocetyl tin” and included them in Level 1 Prohibited Substances
  - The rule of prohibiting the use of PVC resin in packaging materials has already been observed. Added descriptions that PVC resin in packaging materials is subject to regulations as a Level 2 Prohibited Substance with the aim of specifying the rule in the Chemical Substances Management Rank Guidelines.

Revision History	Revision Contents
6 1) Table 1 Caution 4	Added “if applicable regions or products are individually designated” to “Any substances not included in this list must also be fully compliant if so designated by a treaty, law, ordinance, industry guidelines, etc.”
6 1) Table 1	Changed substance group names of “Bis (tributyltin) oxide” and “Tri-substituted organostannic compounds” to “Specified organic tin compounds (1).” Corrected the regulated value of the applicable substance group to “Tin concentration.”
6 1) Table 1	Added “Dibutyltin compounds” as a substance group named “Specified organic tin (2)” and “Diocetyl tin compounds” as substance group named “Specified organic tin (3).”
6 1) Table 1	Added footnotes *10 and *11.
6 2) Table 2-12 Table 2-13	Added tables.
6 2) Table 3	Deleted Dibutyltin and Diocetyl tin.
6 2) Table 4-3	Added “Packaging materials used for products and accessories, etc. that come with products.”
6 3)	Added “Substances subject to management must be fully compliant if applicable regions or products are individually designated by a treaty, law, ordinance, industry guidelines, etc.”
6 4) Table 6	Changed substance group names to Specified organic compounds (1) to (3). Added tin conversion coefficients of Specified organic compounds (1) to (3).

Panasonic Group  
Chemical Substances Management Rank Guidelines  
Version 8 (For Products)

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