

◆Table 2 Criteria for substances whose inclusion is banned

(Note) 1. Since examples of purposes and uses do not cover all cases, please check with the publisher if you are not sure.

2. When there is no indication of exempt in the control level, it means “there is no exempt purposes and uses.”

3. See Table 6 for the details of each substance group. As for ozone depleting substances, see Table 7.

No.	Name of substance	Control level	Examples of purposes and uses	Content threshold	Period when delivery is prohibited
1	Polychlorinated Biphenyls (PCBs)	Banned	Insulating oil, Lubricant, Electric insulating medium, Solvent, Electrolyte	—	Immediately
		Exempt	When contained as by-product	50ppm	—
2	Polychlorinated Terphenyls	Banned	Insulating oil, Lubricant, Electric insulating medium, Solvent, Electrolyte	—	Immediately
3	Polychloronaphthalenes (Cl=>1)	Banned	Lubricant, Paint, Plastic stabilizer, Electric insulating medium, Flame retardant	—	Immediately
4	Polybrominated Biphenyls (PBBs)	Banned	Flame retardant	1000ppm	Immediately
5	Polybrominated Diphenyl ethers (PBDEs)	Banned	Flame retardant	1000ppm	Immediately
6	Short Chain Chlorinated Paraffins	Banned	PVC plasticizer, Flame retardant	1000ppm	Immediately
7	Asbestos	Banned	Brake lining pad, Insulator, Filler, Rubbing agent, Electric insulating medium, Filler, Pigment/Paint, Talc, Heat insulator	—	Immediately
8	Ozone Depleting Substances	Banned	Coolant, Foaming agent, Digestive, Detergent	—	Immediately
		Exempt	When contained as by-product	—	—
9	Cadmium and its compounds	Banned	<ul style="list-style-type: none"> <li>• Packaging materials</li> </ul>	Table 3	Immediately
			<ul style="list-style-type: none"> <li>• Portable battery, Battery</li> <li>• Paint, ink</li> <li>• Additives such as pigment, dye, stabilizer in resin (including gum) materials (excluding impurities)</li> <li>• Material or a part treated with cadmium electroplating or cadmium coating.</li> <li>• Parts Electroless plated with nickel using luster, containing cadmium</li> <li>• Pigment and dye in glass and paint for glass</li> <li>• Silver brazing filler metals containing cadmium</li> <li>• Material and parts such as zinc, zinc alloy, and zinc compound, etc. (free-cutting brass rods, rubber belt, etc.)</li> <li>• Electric point of contact of DC motor, switch, relay, breaker and the like</li> <li>• Fuse element of temperature fuse</li> <li>• Fluorescent tubes (small-size fluorescent tubes, straight fluorescent tubes)</li> <li>• Nickel/cadmium battery</li> <li>• Fluorescent material contained in fluorescent indicator</li> </ul>	100ppm	Immediately
10	Hexavalent chromium and its compounds	Banned	<ul style="list-style-type: none"> <li>• Products that come into contact with skin, including leather products and leather parts</li> </ul>	3ppm (In total dry weight of leather)	Immediately
			<ul style="list-style-type: none"> <li>• Packaging materials</li> <li>• Paint, ink</li> <li>• Materials and parts galvanized and treated with chromate (sheet metal, screw, shafts, bearings, etc. used for general machinery components, purchased electronic components, electric power devices, etc.)</li> <li>• Materials and parts such as aluminum, copper alloys and zinc alloys chemically synthesized with chromate (treatment before painting)</li> </ul>	1000ppm	

No.	Name of substance	Control level	Examples of purposes and uses	Content threshold	Period when delivery is prohibited
11	Lead and lead compounds	Banned	<ul style="list-style-type: none"> <li>• Packaging materials</li> <li>• Lead in polyvinyl chloride electric wire coating</li> <li>• Paint, ink</li> <li>• Additives such as pigment, dye, stabilizer in resin (including gum) materials</li> <li>• Material and parts plated with lead alloy (e.g. piano wire plated with tin)</li> <li>• Parts containing lead as lubricant (e.g. Dry bearing)</li> <li>• Optical glass, filter glass</li> <li>• Various alloys containing lead(However, exempt alloys are excluded.)</li> <li>• Solder materials (solders with Pb = 85% or less)</li> <li>• Soldered parts and units (Printed Circuit Board, electric power device, motor, clutch, sensor, etc)</li> <li>• Lead in server and storage (HDD)</li> <li>• FFC connector contact part</li> </ul>	<p>Table 3</p> <p>300ppm [※1]</p> <p>1000ppm</p>	Immediately
		Exempt	<ul style="list-style-type: none"> <li>• Glass fluorescent tube with lead content of no more than 0.2wt%</li> <li>• Up to 0.35wt% of lead contained in steel and zinc-coated steel products as alloy ingredient for the purpose of machine work</li> <li>• Lead contained in aluminum products as alloy ingredient (no more than 0.4wt%)</li> <li>• Lead contained in copper alloy (no more than 4.0wt%)</li> <li>• Lead contained in high melting point solder (Lead alloy with 85wt% or more of lead content)</li> <li>• Electric and electronic parts containing lead in glass or ceramic except dielectric ceramic in condenser (example: piezo element), or electric and electronic parts containing lead in glass or ceramic base compound</li> <li>• Lead in dielectric ceramic in condenser with rated voltage of AC125v or DC 250 or more.</li> <li>• Lead in dielectric ceramic in condenser with rated voltage of AC125 or less than DC250V. However, limited to the spare parts for electrical and electronic products placed on the market prior to January 1, 2013</li> <li>• Lead contained in white glass used for optical purposes</li> <li>• Lead contained in solder composed of more than two kinds of elements, and is used for joining pin and package of microprocessor, of which lead content is more than 80wt% and less than 85wt%. However, spare parts of products put on market before Jan. 1, 2011 only are applicable</li> <li>• Lead contained in solder necessary for secure electric connection between semiconductor die and carrier inside of chip package (flipchip).</li> </ul>	—	

※1 According to the Proposition65 of the State of California, USA

No.	Name of substance	Control level	Examples of purposes and uses	Content threshold	Period when delivery is prohibited		
12	Mercury and mercury compounds	Banned	· Packaging materials	Table 3	Immediately		
			· Batteries or accumulators	5ppm [※2]			
			· Dispensation into pigment, paint, ink and resin · Relay, switch and sensor with mercury as contact point	1000ppm			
		Exempt	Mercury in straight tube fluorescent lamp with double caps for generic illumination	Standard lifetime lamp using three band fluorescent light with lamp radius of less than 9mm (Example: T2)	4mg	—	
				Standard lifetime lamp using three band fluorescent light with lamp radius of at least 9mm and no more than 17mm (Example: T5)	3mg		
				Standard lifetime lamp using three band fluorescent light with lamp radius of over 17mm and no more than 28mm (Example: T8)	3.5mg		
				Standard lifetime lamp using three band fluorescent light with radius of over 28mm (Example: T12)	3.5mg		
				Long lifetime (25000 hours) lamp using three band fluorescent light	5mg		
				Cold cathode fluorescent lamp for special uses and external electrode fluorescent lamp (mercury included in CCFL and EEFL)	Short lamp (500mm or less)		3.5mg
					Medium length lamp (over 500mm and no more than 1500)		5mg
Long lamp (over 1500mm)	13mg						
· High-pressure mercury lamp used as light source of projector		—	—				

※2. Mercury content threshold in battery is calculated by the proportion of the mass of mercury in the total mass of battery cell (i. e., concentration per one battery cell), in the same way as the definition in the EU Battery Directive.

No.	Name of substance	Control level	Examples of purposes and uses	Content threshold	Period when delivery is prohibited
13	Perfluorooctanesulfonic acid and its salts (PFOS)	Banned	<ul style="list-style-type: none"> <li>Surface treatment, plating, fabric</li> <li>Other than preparations, surface treatment, plating, and fabric</li> </ul>	1µg/m <sup>2</sup> or 1000 ppm	Immediately
		Exempt	<ul style="list-style-type: none"> <li>Photoresists or anti reflective coatings for photolithography processes</li> <li>Photographic coatings applied to films, papers, or printing plates.</li> <li>"Mist suppressants for non-decorative hard chromium (VI) plating and wetting agents for use in controlled electroplating systems" where the amount of PFOS released into the environment is minimized, by fully applying relevant best available techniques.</li> </ul>	—	
14	Certain Azocolourants and Azodyes that form certain amines	Banned	<ul style="list-style-type: none"> <li>Fabric and leather parts/products that can come into direct contact with human skin (or mouth orifice) for extended period of time. [※3]</li> </ul>	30ppm	Immediately
		Exempt	<ul style="list-style-type: none"> <li>Purpose of use other than the above</li> </ul>	—	
15	Trisubstituted organotin compound	Banned	<ul style="list-style-type: none"> <li>Antiseptic, antimold, paint, colorant, antifoulant paint, cooling medium, bloating agent, extinguishing agent, cleaning agent, stabilization agent, antioxidizing agent/age inhibitor, antibacterial and antifungal agents, antifoulant</li> </ul>	1000ppm [※4]	Immediately
16	Dibutyltin compounds	Banned	<ul style="list-style-type: none"> <li>Stabilizers for vinyl chloride resin, lubricants and catalyst</li> </ul>	1000ppm [※4]	Immediately
17	Diocetyl tin compounds	Banned	<ul style="list-style-type: none"> <li>RTV-2 moulding kits</li> <li>Two uses of articles made of fabric with an intention to come into contact with skin</li> </ul>	1000ppm [※4]	Immediately
		Exempt	<ul style="list-style-type: none"> <li>Use other than the above two uses</li> </ul>	—	
18	Dimethylfumarate (dimethyl fumarate (DMF))	Banned	<ul style="list-style-type: none"> <li>Antiseptic of leather products</li> <li>Desiccant (silica gel pack)</li> </ul>	0.1ppm	Immediately
19	Polycyclic aromatic hydrocarbons (PAHs)	Banned	<ul style="list-style-type: none"> <li>Rubber or plastic components that come in direct contact with human skin or in the mouth for extended period or short period repeatedly</li> </ul>	1ppm	Immediately
		Exempt	<ul style="list-style-type: none"> <li>Applications other than the above</li> </ul>	—	
20	PFOA-perfluorooctanoic acid	Banned	Fabric, Coated materials	1µg/m <sup>2</sup> 1000ppm	Immediately
		Exempt	—	—	
21	Hexabromocyclododecane	Banned	Flame retarder for resin Accelerating admixture for adhesive	—	Immediately
		Exempt	None	—	
22	Phthalic acid di-2-ethylhexyl	Banned	Plasticizer of polyvinyl chloride, Dielectric for condensers	1000ppm	After Apl. 22,2019
		Exempt	None	—	
23	Butyl benzyl phthalate	Banned	Plasticizer for resin	1000ppm	After Apl. 22,2019
		Exempt	None	—	
24	Dibutyl phthalate	Banned	Plasticizer for resin,paint and ink	1000ppm	After Apl. 22,2019
		Exempt	None	—	
25	Diisobutyl phthalate	Banned	Plasticizer for paint	1000ppm	After Apl. 22,2019
		Exempt	None	—	

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※3. Only those instructed in drawings or specifications are applicable

※4. Concentration of tin mass after conversion into metal