

◇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"> • Packaging materials 	Table 3	Immediately
			<ul style="list-style-type: none"> • Portable battery, Battery • Paint, ink • Additives such as pigment, dye, stabilizer in resin (including gum) materials (excluding impurities) • Material or a part treated with cadmium electroplating or cadmium coating. • Parts Electroless plated with nickel using luster, containing cadmium • Pigment and dye in glass and paint for glass • Silver brazing filler metals containing cadmium • Material and parts such as zinc, zinc alloy, and zinc compound, etc. (free-cutting brass rods, rubber belt, etc.) • Electric point of contact of DC motor, switch, relay, breaker and the like • Fuse element of temperature fuse • Fluorescent tubes (small-size fluorescent tubes, straight fluorescent tubes) • Nickel/cadmium battery • Fluorescent material contained in fluorescent indicator 	20ppm	
10	Hexavalent chromium and its compounds	Banned	<ul style="list-style-type: none"> • Products that come into contact with skin, including leather products and leather parts 	3ppm (In total dry weight of leather)	Immediately
			<ul style="list-style-type: none"> • Packaging materials 	Table 3	
			<ul style="list-style-type: none"> • Paint, ink • 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.) • Materials and parts such as aluminum, copper alloys and zinc alloys chemically synthesized with chromate (treatment before painting) 	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"> • Packaging materials • Lead in polyvinyl chloride electric wire coating • Paint, ink • Additives such as pigment, dye, stabilizer in resin (including gum) materials • Material and parts plated with lead alloy (e.g. piano wire plated with tin) • Parts containing lead as lubricant (e.g. Dry bearing) • Optical glass, filter glass • Various alloys containing lead(However, exempt alloys are excluded.) • Solder materials (solders with Pb = 85% or less) • Soldered parts and units (Printed Circuit Board, electric power device, motor, clutch, sensor, etc) • Lead in server and storage (HDD) • FFC connector contact part 	Table 3 300ppm [*1]	Immediately
		Exempt	<ul style="list-style-type: none"> • Glass fluorescent tube with lead content of no more than 0.2wt% • Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in batch hot dip galvanised steel components containing up to 0,2 % lead by weight • Lead as an alloying element in aluminium containing up to 0.4wt % lead by weight, provided it stems from lead-bearing aluminium scrap recycling • Lead as an alloying element in aluminum for machining purposes with a lead content up to 0,4% by weight • Lead contained in copper alloy (no more than 4.0wt%) • Lead contained in high melting point solder (Lead alloy with 85wt% or more of lead content) • 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 • Lead in dielectric ceramic in condenser with rated voltage of AC125v or DC 250 or more. • 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 • Lead contained in white glass used for optical purposes • 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 • Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: <ul style="list-style-type: none"> — a semiconductor technology node of 90 nm or larger; — a single die of 300 mm² or larger in any semiconductor technology node; — stacked die packages with die of 300 mm² or larger, or silicon interposers of 300 mm² or larger. 	—	—

*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	—			—			
13	Perfluorooctanesulfonic acid and its salts (PFOS)	Banned	• Surface treatment, plating, fabric	1µg/m ² or 1000 ppm	Immediately		
			• Other than preparations, surface treatment, plating, and fabric	1000ppm			
14	Certain Azocolourants and Azodyes that form certain amines	Banned	• Photoresists or anti reflective coatings for photolithography processes • Photographic coatings applied to films, papers, or printing plates. • “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.	—	—		
			• Fabric and leather parts/products that can come into direct contact with human skin (or mouth orifice) for extended period of time. [*3]	30ppm			
15	Trisubstituted organotin compound	Banned	• Purpose of use other than the above	—	—		
			• Antiseptic, antimold, paint, colorant, antifoulant paint, cooling medium, bloating agent, extinguishing agent, cleaning agent, stabilization agent, antioxidantizing agent/age inhibitor, antibacterial and antifungal agents, antifoulant	1000ppm [*4]			

*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.

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

*4. Concentration of tin mass after conversion into metal

No.	Name of substance	Control level	Examples of purposes and uses	Content threshold	Period when delivery is prohibited
16	Dibutyltin compounds	Banned	• Stabilizers for vinyl chloride resin , lubricants and catalyst	1000ppm [*4]	Immediately
17	Diocetyl tin compounds	Banned	• RTV-2 moulding kits • Two uses of articles made of fabric with an intention to come into contact with skin	1000ppm [*4]	Immediately
		Exempt	• Use other than the above two uses	—	—
18	Dimethylfumarate (dimethyl fumarate (DMF))	Banned	Antiseptic of leather products	0.1ppm	Immediately
			• Desiccant (silica gel pack)		
19	Polycyclic aromatic hydrocarbons (PAHs)	Banned	• Rubber or plastic components that come in direct contact with human skin or in the mouth for extended period or short period repeatedly [*3]	1ppm	Immediately
		Exempt	• Applications other than the above	—	—
20	Perfluorooctanoic acid (PFOA) and any related substances 1: eight substances regulated by Norwegian law [*5]	Banned	• Textile and coated materials	1µg/m ²	Immediately
			• Articles (other than the above)	1000ppm	
	Perfluorooctanoic acid (PFOA) and any related substances 2: Substance regulated by EU REACH regulation [*5]	Banned	• Article (except for the following)	PFOA and its salt : 25ppb One or a combination of related substances : 1000ppb	Since 1st May 2020
		Exempt [*7]	• Molded products with photographic coating for film or paper or printing plate • Semiconductors and compound semiconductors manufactured by use in photolithographic processes for semiconductors or etching processes for compound semiconductors.	—	—
21	Hexabromocyclododecane (HBCDD)	Banned	Flame retarder for resin Accelerating admixture for adhesive	—	Immediately
22	Bis (2-ethylhexyl) phthalate (DEHP)	Banned	Plasticizer of polyvinyl chloride, Dielectric for condensers	1000ppm [*8]	Immediately
23	Benzyl butyl phthalate (BBP)	Banned	Plasticizer for resin	1000ppm [*8]	Immediately
24	Dibutyl phthalate (DBP)	Banned	Plasticizer for resin, paint and ink	1000ppm [*8]	Immediately
25	Diisobutyl phthalate (DIBP)	Banned	Plasticizer for paint	1000ppm [*8]	Immediately
26	Polymers in which halogens are contained structurally and polymers to which halogenated compounds are added	Banned	Plastic parts for packaging	—	Immediately
		Exempt	Purpose of use other than the above	—	—

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*5. Refer to Appendix 6 for details of target substances

*6. The threshold value in the molded product is used.

*7. Eight substances regulated by Norwegian law must meet Norwegian law standards even if they are excluded.

*8. For products that are not subject to the EU RoHS directive (packaging materials, promotional items, etc.), the threshold value is the sum of DEHP, BBP, DBP, and DIBP in the plasticized material.