

Table 1: Standard of prohibited and controlled substances in product for JDI

A. Prohibited substances

No.	Substances	Target	Threshold level *1)	Referring laws and regulations	Remarks
1	Lead and its compounds *2)	Resin materials Skin-contact use	50 ppm 90 ppm	- EU RoHS Directive(2011/65/EC) - Packaging and Packaging Waste Directive(EU)	- Prohibited total content of 4 substances (cadmium, lead, mercury and hexavalent chromium), contained more than 100 ppm, each material in packaging materials. - Resin materials included inks, paints and rubbers - Intended use of skin-contact applied to toys. The threshold level refers to the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3).
2	Mercury and its compounds *2)	All uses	Prohibited intentionally added	- EU RoHS Directive(2011/65/EC) - Packaging and Packaging Waste Directive(EU) - EU ELV Directive(2000/53/EC)	- Prohibited its impurity contained over 50 ppm. - Prohibited total content of 4 substances (cadmium, lead, mercury and hexavalent chromium), contained more than 100 ppm, per material in packaging materials.
3	Cadmium and its compounds *2)	Resin materials Soldier	5 ppm 20 ppm	- EU RoHS Directive(2011/65/EC) - Packaging and Packaging Waste Directive(EU)	- Prohibited total content of four substances (cadmium, lead, mercury and hexavalent chromium), contained more than 100 ppm, per material in packaging materials.
4	Hexavalent chromium and its compounds *2)	All uses other than the above	50 ppm	- EU ELV Directive(2000/53/EC)	- Resin materials included inks, paints and rubbers
5	Polybrominated biphenyls (PBBs)	All uses	Prohibited intentionally added	- EU RoHS Directive(2011/65/EC)	- Prohibited its impurity contained over 500 ppm.
6	Polybrominated diphenylethers (PBDEs)	All uses	Prohibited intentionally added	- EU RoHS Directive(2011/65/EC)	- Prohibited its impurity contained over 10 ppm for each PBDE. 500 ppm in total.
7	PCN, PCB, PCT and Halogenated diphenyl methanes				
	Polychlorinated naphthalenes (PCNs)	All uses	Prohibited intentionally added	- Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances	- Prohibited its impurity contained over 5 ppm.
	Polychlorinated biphenyls (PCBs)	All uses	Prohibited intentionally added	- Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances	- Prohibited its impurity detected through component analysis (0.1 ppm or less).
	Polychlorinated terphenyls (PCTs)	All uses	Prohibited intentionally added	- EU REACH ANNEX XVII(Restricted substances)	- Prohibited its impurity contained over 5 ppm.
	Halogenated diphenyl methanes	All uses	Prohibited intentionally added	- EU REACH ANNEX XVII(Restricted substances)	- Prohibited its impurity contained over 1000 ppm.
	Monomethyl-tetrachloro-diphenyl methane				- CAS No. 76253-60-8
	Monomethyl-dichloro-diphenyl methane				- CAS No. 81161-70-8
	Monomethyl-dibromo-diphenyl methane (DBBT)				- CAS No. 99688-47-8
8	Asbestos	All uses	Prohibited intentionally added	- EU REACH ANNEX XVII(Restricted substances)	
9	Organotin compounds				
	Trisubstituted organotin compounds (including Bis(tributyltin) oxide (TBTO))	All uses	Prohibited intentionally added	- EU REACH ANNEX XVII(Restricted substances) - Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class III Specified Chemical Substances	- Prohibited its impurity contained over 1,000 ppm converted to tin.
	Dibutyltin compounds (DBT)	All uses	1,000 ppm of the tin concentration	- EU REACH ANNEX XVII(Restricted substances)	
	Diocetyl tin compounds (DOT)	All uses	1,000 ppm of the tin concentration	- EU REACH ANNEX XVII(Restricted substances)	
10	Chlorinated paraffins				
	Short-chain chlorinated paraffins (SCCP)	All uses	Prohibited intentionally added	- EU REACH(1907/2006) and ANNEX XVII, etc.	- Prohibited its impurity contained over 1,000 ppm.
	Medium-chain chlorinated paraffins (MCCP)	All uses	1000 ppm	- JDI Self-regulation *4)	[Example] CAS No. 85535-85-9
11	Azo pigment and azo dye	Fiber and leather products	30 ppm	- EU REACH ANNEX XVII(Restricted substances)	Azo compound that generates specified amine when decomposed by the method indicated in EU REACH ANNEX XVII and the amine itself are prohibited. See EU REACH ANNEX XVII for details on the specified amines.
12	Phthalate esters *2)				
	1) Bis-2-ethylhexyl phthalate (DEHP (DOP))	All uses	Prohibited intentionally added	- EU RoHS Directive(2011/65/EC)	1) CAS No. 117-81-7
	2) Benzyl butyl phthalate (BBP)			- EU REACH ANNEX XVII(Restricted substances)	2) CAS No. 85-68-7
	3) Dibutyl phthalate (DBP)			- USA CPSIA	3) CAS No. 84-74-2
	4) Diisobutyl phthalate (DIBP)			- JDI self-regulation *4)	4) CAS No. 84-69-5
	5) Di-isononyl phthalate (DINP)			- EU RoHS Directive(2011/65/EC)	5) CAS No. 28553-12-0 and 68515-48-0
	6) Dicoctyl phthalate (DODP)				6) CAS No. 26761-40-0 and 68515-49-1
	7) Di-n-octyl phthalate (DNOP)				7) CAS No. 117-84-0
	8) Di-n-hexyl phthalate (DNHP)				8) CAS No. 84-75-3
	9) Diisopentyl phthalate				9) CAS No. 605-50-5
	10) D-n-pentyl phthalate (branched and linear)				10) CAS No. 84777-06-0
	11) N-pentyl-isopentyl phthalate				11) CAS No. 776297-69-9
	12) 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)				12) CAS No. 71868-89-6
	13) 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)				13) CAS No. 68515-42-4
	14) Bis(2-methoxyethyl) phthalate (DMEP)				14) CAS No. 117-82-8
	15) Dipentyl phthalate (DPP)				15) CAS No. 131-18-0
	16) 1,2-Benzenedicarboxylic acid, di-C6-10 alkyl esters with ≥0.3% of dihexyl phthalate, 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥0.3% of dihexyl phthalate				16) CAS No. 68515-51-5 and 68648-93-1
	17) Dipentyl phthalate (DEP)				17) CAS No. 84-66-2
	18) Dimethyl phthalate (DMP)				18) CAS No. 131-11-3
	19) Diundecyl phthalate (DuDP)				19) CAS No. 3648-20-2
	20) Dicyclohexyl phthalate (DCHP)				20) CAS No. 84-61-7
	21) Diisohexyl phthalate (DIHP)				21) CAS No. 68515-50-4
					Impurities and residues are limited to a total of 1000 ppm for above 1)-21).
13	Benzene	Toy products All uses other than the above	Prohibited intentionally added 1000 ppm	- EU REACH ANNEX XVII(Restricted substances) - Industrial Safety and Health Act (Specified Chemical Substances), etc. - EU REACH ANNEX XVII(Restricted substances)	- CAS No. 71-43-2
14	Nickel and its compounds	Skin-contact use	Prohibited intentionally added	- EU Directive(67/548/EEC), etc.	Content in components or materials for skin-contact uses as impurities is limited to 0.28 mg/cm ² /week.
15	Cobalt dichloride	Moisture indicator and humidity indicator used for silica gel All uses other than the above	Prohibited intentionally added 100 ppm	- EU Directive(67/548/EEC), etc.	
16	Perfluorooctane sulfonic acid (PFOS) and its salts	Coating materials All uses other than the above	1 µg/m ² Prohibited intentionally added	- EU Regulation ((EC) No.850/2004) - EU Regulation (EU) No.757/2010) - Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances	Prohibited its impurities or residues over 10 ppm
17	Perfluorooctanoic acid (PFOA) and its salts and related substances	Coating materials All uses (Excluding the exempted applications in EU REACH ANNEX XVII)	1 µg/m ² 25 ppb (as PFOA and its salts) 1000 ppb (as a total of PFOA-related substances)	- Norway Product Regulations (FOR-2004-06-01-922) - EU REACH ANNEX XVII (Restricted substances) - Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances	
18	Dimethyl fumarate (DMF)	All uses	0.1 ppm	- EU REACH ANNEX XVII(Restricted substances)	- CAS No. 624-49-7
19	Ozone depleting substances	All uses	Prohibited intentionally added	- Montreal Protocol on Substances that Deplete the Ozone Layer - EU Regulation (EC) No. 2037/2000)	
20	Fluorine based green house gases (PFC, HFC and SF6)	All uses	Prohibited intentionally added	- EU Regulation (EC) No. 842/2006)	
21	Barium	Toy products for skin-contact use	1000 ppm	- Toy Safety Directive(88/378/EEC)	The threshold level refers to the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3).
22	Chromium	Toy products for skin-contact use	60 ppm	- Toy Safety Directive(88/378/EEC)	The threshold level refers to the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3).
23	Selenium	Toy products for skin-contact use	500 ppm	- Toy Safety Directive(88/378/EEC)	The threshold level refers to the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3).
24	Polycyclic aromatic hydrocarbons (PAHs)	Skin-contact use	0.5 ppm for each and 10 ppm for a total of 27 kinds	- Germany GS Certification - EU REACH ANNEX XVII(Restricted substances)	27 substances of PAHs are as follows: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Chrysene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[j]fluoranthene, Indeno[1,2,3-cd]pyrene, Dibenzo[a,h]anthracene, Benzo[g,h,i]perylene, Benzo[a]pyrene, Benzo[e]pyrene, Benzo[f,s]i]perylene, Dibenzo[a,h]acridine, Dibenzo[a,j]acridine, Dibenzo[a,e]fluoranthene, Dibenzo[a,e]pyrene, Dibenzo[a,h]pyrene, Dibenzo[a,i]pyrene, 7H-dibenzo[c,g]carbazole, 5-methylchrysiene

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A. Prohibited substances - continuation from previous page

No.	Substances	Target	Threshold level *1)	Referring laws and regulations	Remarks
25	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances (*3)	All uses	Prohibited intentionally added	- Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances	- Impurities and residues of the specific benzothiazole (2-(2H-1,2,3-benzotriazol-2-yl)-4,6-di-tert-butylphenol are limited to a total of 5 ppm. - Impurities and residues of HBCDD are limited to a total of 100 ppm.
26	Radioactive substances	All uses	Prohibited intentionally added	- Radiation Hazard Prevention Act - Nuclear Reactor Regulation Law	
27	Formaldehyde	All uses	0.1 mL/m ³ (ppm) and 300 ppm	- German ChemVerbotsV - Danish Ministry of the Environment Statutory Order no. 289	- Threshold level refers to emission concentration according to the chamber method (EN 717-1:2004) and the concentration must not exceed 0.1 mL/m ³ and, in the case where it is included in the components or materials in their delivery condition (e.g., after drying ink) to JDI, the concentration must not exceed 300 ppm for a homogeneous material.
28	Benzenamine,N-Phenyl-, Reaction Products with Styrene and 2,4,4- Trimethylpentene (BNST)	All uses	Prohibited intentionally added	- JDI self-regulation *4)	- CAS No. 68921-45-9
29	Phenol, n-methyl- o-Cresol p-Cresol m-Cresol Cresol	All uses	10 ppm	- Canadian Environmental Protection Act, 1999	- CAS No. 95-48-7 - CAS No. 106-44-5 - CAS No.108-39-4 - CAS No. 1319-77-3
30	Halogenated compounds (Chlorine-Bromine) *including halogenated (Chlorine/Bromine) flame retardants	All uses	Chlorine or Bromine < 900 ppm (Total of Chlorine and Bromine < 1500 ppm)	- JDI self-regulation *4)	- Chlorinated and brominated compounds, ex. short-chained chlorinated paraffin, PBBs and PBDEs etc., prohibited other than this regulation, should be taken priority to those threshold. Not applied to color materials for color filters.
31	Polyvinyl chloride (PVC) and its compounds	All uses	Chlorine < 900 ppm	- JDI self-regulation *4)	
32	Tetrabromobisphenol-A (TBBPA)	All uses	1000 ppm	- JDI self-regulation *4)	- CAS No. 79-84-7
33	Antimony and its compounds	Skin-contact use All uses other than the above	60 ppm 700 ppm	- JDI self-regulation *4) - Toy Safety Directive(88/378/EEC)	- Prohibited contained over 60 ppm in a product, intended use of cutaneous touch. - Intended use of cutaneous touch applied to toys. The threshold level refers to the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3).
34	Arsenic and its compounds	All	Prohibited intentionally added	- JDI self-regulation *4) - Toy Safety Directive(88/378/EEC)	- Dipants for production of semiconductor devices, etc. accepted. - Prohibited its impurity contained over 1000 ppm in the solder. - Prohibited its impurity contained over 25 ppm in the Toys, intended use of cutaneous touch. Intended use of cutaneous touch applied to toys. The threshold level refers to the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3). - Prohibited other than the above impurity contained over 50 ppm.
35	Beryllium and its compounds	All uses	Prohibited intentionally added	- JDI self-regulation *4)	
36	Beryllium oxide	All uses	1000 ppm		
37	Bisphenol A	All uses	1000 ppm	- JDI self-regulation *4)	- CAS No. 80-05-7
38	Natural rubber	All uses	Prohibited intentionally added	- JDI self-regulation *4)	
39	4-(Isopropylamino)diphenylamine	Skin-contact use	Prohibited intentionally added	- JDI self-regulation *4)	- CAS No. 101-72-4
40	Nonylphenol (NP) and nonylphenol ethoxylates (NPE)	Parts made of fiber, leather, metal, or paper	Prohibited intentionally added	- EU REACH ANNEX XVII (Restricted substances) - JDI self-regulation *4)	[Examples] CAS No.: 7311-27-5, 20427-84-3, 104-25-9, 27176-93-8, 28679-13-2, 25154-52-3, 104-40-5, 37340-60-6, 68412-53-3, 27177-05-5, 27177-08-8, 9016-45-9, 84852-15-3, 27986-36-3, 37251-69-7, 26523-78-4, 26027-38-3, 51938-25-1, 37205-87-1, 68412-54-4, 127087-87-0
41	Tris(2-chloroethyl) phosphate (TCEP)	All uses	1000 ppm	- JDI self-regulation *4)	- CAS No. 115-96-8
42	Perchlorates	All uses	0.1 ppm	- JDI self-regulation *4) - California State Law in the U.S.A.	[Examples] CAS No.: 7601-89-0, 7778-74-7, 7790-98-9, 7791-03-9, 10034-81-8, 7791-07-3
43	EU REACH ANNEX XIV	Prohibited use for substances except for authorized applications of EU REACH ANNEX XIV *5)		- EU REACH ANNEX XIV	
44	EU REACH ANNEX XVII	Prohibited use for substances and applications of EU REACH ANNEX XVII *5)		- EU REACH ANNEX XVII (Restricted substances)	
45	Specific Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances (LCPFACs)	Surface coated parts and coating materials *a: Not applicable for use in adhesives *b: Not applicable for use in manufacturing and processing of surface coatings and finishes used for the surface treatment of textiles, leather and hard materials (resins, wood, metals, etc.) and the manufacture of wetting	Prohibited intentionally added	- Pursuant to Section 5 of the United States Toxic Substances Control Act's (TSCA) Significant New Use Rules (SNURs)	1) CAS No. 68187-47-3 *a 2) CAS No. 66391-05-2 *b 3) CAS No. 70969-47-0 4) CAS No. 1078712-88-5 5) CAS No. 1078715-61-3 6) EPA Accession No. CBI 71217 *c 7) EPA Accession No. CBI 89419 *c 8) EPA Accession No. CBI 274147 *c *c: EPA approval number for CBI (Confidential Business Information). Regarding the above three types of CBI substances, even if "CBI" is written in a document (ingredients section in SDS, etc.) obtained by a supplier, a substance is not considered as a prohibited substance, if the number is different from any of the above.
46	PBT (Persistent, Bioaccumulative and Toxic) Substances	All uses	Prohibited intentionally added	- Pursuant to the United States Toxic Substances Control Act ("TSCA"), PBT Substances	1) CAS No. 1163-19-5 2) CAS No. 68937-41-7 3) CAS No. 732-26-3 4) CAS No. 133-49-3 5) CAS No. 87-68-3 - The following are exempt. PIP(3:1): Processing and distribution in commerce for use in new and replacement parts for the automotive and aerospace industry, and the distribution in commerce of those parts to which PIP (3:1) has been added. HCBd: The unintentional production of HCBd as a byproduct during the production of chlorinated solvents
47	Perfluorohexane Sulfonates (PFHxS) and its salts and PFHxS-related substances	All uses	Prohibited intentionally added	- Stockholm Convention - Canada Prohibition of Certain Toxic Substances Regulations	- Prohibited its impurity contained over 25 ppb in total of PFHxS and its salt, 1000 ppb in total of PFHxS-related substances.
48	List of the First 10 Chemical Substances Undergoing TSCA's Risk Evaluation	All uses	Prohibited intentionally added	- Pursuant to the United States Toxic Substances Control Act ("TSCA")	1) CAS No. 75-09-2 2) CAS No. 106-94-5 3) CAS No. 25637-99-4, 3194-55-6, 3194-57-8 4) CAS No. 1332-21-4 5) CAS No. 56-23-5 6) CAS No. 123-91-1 7) CAS No. 872-50-4 8) CAS No. 127-18-4 9) CAS No. 81-33-4 10) CAS No. 79-01-6 - If used as the solvent and contained as the residual component in the state of the article, it is exempt from application. - Depending on changes to the regulatory development, the scope, thresholds, and/or exemption of the ban may change.
49	n-Hexane	All uses	1000 ppm	- JDI self-regulation *4)	- CAS No. 110-54-3
50	9-14c perfluorocarboxylic acid (C9-C14 PFCAs) and their salts and C9-C14 PFCA-related substances	All uses	25 ppb in total of C9-C14 PFCAs and their salts 260 ppb in total of C9-C14 PFCA-related substances	- EU REACH ANNEX XVII (Restricted substances)	
51	Decabromodiphenylethane (DBDPE)	All uses	Prohibited intentionally added	- JDI self-regulation *4)	- CAS No. 84852-53-9
52	2-(2H-benzotriazol-2-yl)-4,6-di-tert-butylphenol (UV-328)	All uses	Prohibited intentionally added	- JDI self-regulation *4) - EU REACH ANNEX XIV	- CAS No. 25973-55-1
53	Prohibited substances in the GADSL	Parts and products for in-vehicle use	Limits specified in the GADSL	- Global Automotive Declarable Substance List *6)	

*1) If calculated content rate for each substance, its denominator is each homogeneous substance. For substances duplicated with other prohibited substances, the most strict threshold level is taken priority.

*2) Only in cases in which RoHS exemptions are applied to specific uses, it excludes contain-prohibited.
 For more information about the applications that are exempted, please refer to the EU RoHS ANNEX IV/IV exemption lists in the Exemption Lists page of the IEC 62474 website.
 In addition, expiration dates of JDI Exemptions are 1 year before their relevant Expiry Date in these lists.
 Details for IEC 62474, please refer to the following URL: <http://fdi.jsc.ch/iec62474/iec62474.nsf/welcome?openpage>
 *In any event, the latest requirements that are regulated by the EU RoHS Directive take precedence.

*3) Details for Class I Specified Chemical Substances, please refer to the following URL: https://www.meti.go.jp/policy/chemical_management/ksinhou/about/class1specified_index.html

*4) It is concerned about the effect of those substances on human body and environment. Besides, the JDI sets up our regulation originally with consideration for regulatory status of each company.
 * If parts or materials contains over regulated value are specified in specification required by JDI, the content of specification is taken priority.
 * Regarding some substances, JDI define the regulated value more stricter than referred to laws and regulations, with consideration for our customers' requirements and past records etc.
 If using parts or materials contained over the regulated value specified in this standard, due to various reasons, JDI will consider its special acceptance.
 * Parts or materials which has been started delivery before March 31, 2013, they are applied to standard of prohibited substances when they were qualified at that time.

*5) Details for EU REACH ANNEX XIV and XVII, please refer to the following URL:
 EU REACH ANNEX XIV: <https://echa.europa.eu/authorisation-list>
 EU REACH ANNEX XVII: <https://echa.europa.eu/substances-restricted-under-reach>

*6) Details for GADSL, please refer to the following URL:
<https://www.gadsl.org/>
 *URL might be changed.

Table 1: Standard of prohibited and controlled substances in product for JDI

B. Controlled substances

No.	Substances	Target	Threshold level *6)	Referring laws and regulations	Remarks
1	SVHCs in EU REACH regulation (candidates for authorization) *7)	All uses	Reportable	- EU REACH ((EC) No. 1907/2006)	- Candidate list of SVHC for authorization with Article 59 of the REACH Regulation - May be prohibited contained over 1,000 ppm in products/parts by weight in case of specified customers.
2	Other Phthalate esters: Phthalates esters except No. 12 in "A. Prohibited substances"	All uses	Reportable	-	- May be prohibited contained over 1,000 ppm in products/parts by weight in case of specified customers.
3	Substituted diphenylamines	All uses	Reportable	- Canadian Environmental Protection Act, 1999	CAS No.: 101-67-7, 4175-37-5, 10081-67-1, 15721-78-5, 24925-59-5, 26603-23-6, 27177-41-9, 36878-20-3, 68411-46-1, 68442-68-2, 68608-77-5, 68608-79-7, 184378-08-3
4	2-(2-aminoethylamino)ethanol	All uses	Reportable	- Canadian Environmental Protection Act, 1999	- CAS No. 111-41-1
5	Proposition 65 List of Chemicals *8)	All uses	Reportable	- California Proposition 65	- May be prohibited contained in products/parts in case of specified customers.
6	Washington State's List of Chemicals of High Concern to Children(CHCC) *9)	All uses	Reportable	- Children's Safe Products Act	- May be prohibited contained in products/parts in case of specified customers.
7	Phosphorus flame retardant	All uses	Reportable	- SFS 2016:1067	
8	Red phosphorus	All uses	Reportable	-	- May be prohibited contained in products/parts in case of specified customers.
9	Bisphenol Chemicals	All uses	Reportable	-	- CAS No. 24038-68-4, 77-40-7, 1571-75-1, 13595-25-0, 2167-51-3, 14868-03-2, 1478-61-1, 843-55-0, 843-55-0, 1844-01-5, 79-97-0, 80-05-7, 620-92-8, 80-09-1, 2081-08-5, 3236-71-3, 3236-71-3, 92-88-6, 2467-09-9, 1965-09-9
10	Volatile Organic Compounds (VOCs)	All uses	Reportable	- "Voluntary Guidelines for Reducing Vehicle Cabin VOC Concentration Levels" produced by Japan Automobile Manufacturers Association, Inc. (JAMA)	- Necessary to report when it is contained as a residual component in products/parts - VOCs include Formaldehyde, Toluene, Xylene, Ethylbenzene, Styrene, Bis (2-ethylhexyl) phthalate, Tetradecane, Dibutyl phthalate, Acetaldehyde and so on
11	Cobalt and its compounds	All uses	Reportable	-	
12	Endocrine Disrupting Chemicals (EDCs)	All uses	Reportable	-	[Examples] CAS No. 115-86-6, 128-37-0, 137-30-4, 137-42-8, 137-26-8, 12122-67-7, 100-02-7, 108-46-3, 25013-16-5, 611-99-4, 15087-24-8
13	IEC 62474 Substances *10)	All uses	Reportable	-	
14	Iodine Phosphide	All uses	Reportable	-	- CAS No. 22398-80-7
15	Per- and Polyfluoroalkyl Substances (PFAS)	All uses	Reportable	-	[Examples] CAS No. 375-22-4, 2706-90-3, 307-24-4, 375-85-9, 375-95-1, 335-76-2, 2068-94-8, 307-55-1, 72629-94-8, 375-73-5, 2706-91-4, 355-46-4, 375-92-8, 68259-12-1
16	Perfluorohexanoic acid (PFHxA) and its salts and PFHxA-related substances	All uses	Reportable	-	
17	Melamine	All uses	Reportable	-	- CAS No. 108-78-1
18	N-Ethyl-2-pyrrolidone	All uses	Reportable	-	- CAS No. 2687-91-4

*6) When a controlled substance corresponds to a prohibited substance, the threshold level of the prohibited substance should be taken priority.

*7) Details for SVHC, please refer to the following URL:
<https://echa.europa.eu/candidate-list-table>

*8) Details for Proposition 65 List, please refer to the following URL:
http://oehha.ca.gov/pro65/pro65_list/newest.html

*9) Details for CHCC, please refer to the following URL:
<http://cpcps.leg.wa.gov/WAC/default.aspx?cite=173-334-130>

*10) Details for IEC 62474 substances, please refer to the following URL:
<http://std.iec.ch/iec62474>
 *URL might be changed.

Term Definition

[Intentionally added]

This means a situation where a substance is contained in the part, device, or its materials because of deliberate addition, filling, blend, or adhesion, in order to provide a specific characteristic, appearance, property, attribute or quality. Dopants for production of semiconductor devices, etc. are not treated as "intentionally added" if present in the devices in a very small amount.

[Impurities]

This means a substance contained in natural materials, which cannot be completely removed in a refining process by adequate technical means (i.e. natural impurities), and generated in a synthesis process, which cannot be completely removed by adequate technical means.

[Contained]

This means that a situation remains in parts, devices, or their materials because of addition, filling, blend, or adhesion, whether intended or not. When a substance is unintentionally contained in, or added to a product in a processing process, this situation is also regarded as "Contained."

[Prohibited substances]

This means a substance which should be prohibited contains over regulated value or intentionally added.

[Controlled substances]

This means a substance which must be reported to JDI, when the substance is contained and intentionally added. Additionally, it is possible that this substance will be prohibited based on revised laws/regulations and customer's requirements.

[Resin materials]

Common organic compounds containing carbon atom(s) in the molecule. Resin materials include plastics, inks, paints and rubbers.

For any discrepancy between this Table 1 and its translation into any other language, the Japanese version shall always take precedence.

Revision History

Ver	Description	Date
1.00	Original version	Apr. 1, 2013
2.00	<p>Prohibited substances added The following substances were added to the list in response to customers' requests and revision of laws and regulations:</p> <ul style="list-style-type: none"> - No. 10 Middle-chain chlorinated paraffins (MCCPs) - No. 12 Dipentyl Phthalate (DPP) - No. 24 Hexabromocyclododecane (HBCDD) - No. 27 Pentachlorophenols (PCPs) - No. 28 Reaction products of N-phenylbenzene with styrene and 2,4,4-trimethylpentene (BNST) - No. 29 Phenol, n-methyl- <ul style="list-style-type: none"> o-Cresol p-Cresol m-Cresol Cresol - No. 39 Nonylphenol (NP) and nonylphenol ethoxylates (NPE) <p>Controlled substances added The following substances below were added to the list in response to customers' requests and revision of laws and regulations:</p> <ul style="list-style-type: none"> - No. 3 Substituted diphenylamines - No. 4 2-(2-aminoethylamino)ethanol - No. 5 Perchlorates <p>Prohibited substance deleted The substance below was deleted from the list:</p> <ul style="list-style-type: none"> - No. 32 Red phosphorus <p>Threshold levels modified for prohibited substances The following threshold levels were modified in response to customers' requests and law revisions:</p> <ul style="list-style-type: none"> -No. 1 Lead and its compounds: The threshold level for skin-contact uses was changed from 75 ppm to 90 ppm. The threshold level was specified as the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3). - No. 5 Polybrominated biphenyls (PBBs) and No. 6 Polybrominated diphenyl ethers (PBDEs): The threshold level of impurities contained was changed from 900 ppm to 500 ppm. - No. 7 Polychlorinated naphthalenes (PCNs), polychlorinated biphenyls (PCBs), and polychlorinated terpenyls (PCTs): A threshold level of 50 ppm was introduced for impurities contained. - No. 9 Dibutyltin compounds (DBTs) and dioctyltin compounds (DOTs): Exempted uses were cancelled; the target was changed to "all uses." - No. 11 Azo pigments and azo dyes: The prohibited substances were specified as azo compound that generate specified amine when decomposed by the method indicated in EU REACH ANNEX XVII, along with the amine itself. - No. 12 Phthalate esters: The threshold level was changed to "prohibited intentionally added." Threshold level of impurities/residues contained was introduced for each compound. - No. 14 Nickel and its compounds: The threshold level for skin-contact use was changed from 0.5 µg/cm²/week to "prohibited intentionally added." A threshold level of 0.28 µg/cm²/week was introduced for impurities in parts for skin-contact use. - No. 16 PFOS and its salts: A threshold level of 1 µg/m² was introduced for coating use. A threshold level of 10 ppm was introduced for impurities/residues contained. - No. 20 Barium, No. 21 Chromium, and No. 22 Selenium: The threshold level was specified as the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3). - No. 23 Polyaromatic hydrocarbons (PAHs): The target was changed from "Skin-contact use in toy products" to "Skin-contact use." The threshold levels for the following substances were changed to 1 ppm each: Benzo[e]pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene - No. 26 Formaldehyde: The threshold level was changed from 0.1mL/m³ to 0.1mL/m³ (ppm). The threshold level was specified as emission concentration according to the chamber method (EN 717-1:2004). - No. 30 Halogenated compounds (chlorine or bromine): Color materials for color filters were exempted. - No. 32 Antimony and its compounds: The threshold level for skin-contact use was changed from 25 ppm to 60 ppm. The threshold level was specified as emission concentration according to the chamber method (EN 717-1:2004). 	Apr. 1, 2014

	<p>- No. 33 Arsenic and its compounds: The threshold level in metallic materials changed from 1000 ppm to 100 ppm. The threshold level for skin contact use was changed from 50 ppm to 25 ppm, which was specified as the elution result according to the Toy Safety Directive (based on the test method in the European Standard EN 71 Part 3).</p> <p>- No. 37 Perfluorooctanoic acid (PFOA): A threshold level of 1 µg/m² was introduced for coatings. A threshold level of 10 ppm was introduced for residue contained.</p> <p>Other changes Referenced laws and regulations were changed as listed below: No. 1-6: Referenced RoHS-related regulation was changed to EU RoHS Directive 2011/65/EC. No. 16 PFOS and its salts: Referenced regulations were changed to EU REACH Annex XVII (Restricted materials) and EU Directive 2006/122/EC. No. 26 Formaldehyde: Referenced regulation was changed to German ChemVerbotsV and Danish Directive No. 289.</p> <p>The substances in the table were rearranged as follows along with addition of entries: No. 24 to No. 7 Polychlorinated naphthalenes (PCNs) No. 31 to No. 26 Formaldehyde No. 26 to No. 30 Halogenated compounds (Chlorine and Bromine) No. 27 to No. 31 Polyvinyl chloride (PVC) and its compounds No. 28 to No. 32 Antimony and its compounds No. 29 to No. 33 Arsenic and its compounds No. 30 to No. 34 Beryllium and its compounds No. 33 to No. 35 Bisphenol A No. 34 to No. 36 Natural rubber No. 35 to No. 37 Perfluorooctanoic acid (PFOA) No. 36 to No. 38 4-(Isopropylamino)diphenylamine</p>	
	<p>Changes in EU RoHS exemption Exemption codes 16, 39, and 40 were changed to exemption expiration. In addition, some errors in descriptions were corrected.</p>	
3.00	<p>Prohibited substances added The following substances were added to the list in response to customers' requests and revision of laws and regulations: - No. 24 Endosulfan or Benzoepin - No. 40 EU REACH ANNEX XIV - No. 41 EU REACH ANNEX XVII</p> <p>Threshold levels modified for prohibited substances The following threshold levels were modified in response to customers' requests and law revisions: - No. 11 Azo pigment and azo dye: The threshold level was changed from 30 ppm to 20 ppm. - No. 13 Benzene: The threshold level was changed from 5 ppm to "Prohibited intentionally added". - No. 33 Arsenic and its compounds: The threshold level was changed from "100 ppm for metals", "25 ppm for skin-contact use", and "50 ppm for all uses other than the above" to "Prohibited intentionally added".</p> <p>Other changes Referenced laws and regulations were changed as listed below: - No. 16: PFOS and its salts - No. 37: Perfluorooctanoic acid (PFOA) Some substances were added CAS No.</p> <p>Changes in EU RoHS exemption Exemption codes 4(d) was changed to exemption expiration. Exemption codes 1(g), 4(g) and 41 were added to exemptions list.</p>	Apr. 1, 2015
4.00	<p>Prohibited substances added The following substance was added to the list in response to customers' requests: - No. 40 Tris(2-chloroethyl) phosphate (TCEP)</p> <p>Controlled substances changed to Prohibited substances The following substance was changed from Controlled substances to Prohibited substances in response to customers' requests: - No. 41 Perchlorates</p> <p>Threshold levels modified for prohibited substances The following threshold levels were modified in response to customers' requests: - No. 12 Phthalate esters: The threshold level was changed to impurities and residues are limited to a total of 1000 ppm for phthalates. - No. 27 Pentachlorophenols (PCPs): The threshold level was changed from 5 ppm to "Prohibited intentionally added".</p> <p>Other changes Referenced laws and regulations were changed as listed below: - No. 12: Phthalate esters - No. 39: Nonylphenol (NP) and nonylphenol ethoxylates (NPE)</p> <p>The substances in the table were rearranged as follows along with addition of entries: No. 40 to No. 42 EU REACH ANNEX XIV No. 41 to No. 43 EU REACH ANNEX XVII</p>	Apr. 1, 2016

	<p>EU REACH ANNEX XVII reference URL was updated.</p> <p>Changes in EU RoHS exemption Exemption codes 2(b)(2), 7(c)-IV were changed to exemption expiration.</p>	
5.00	<p>Prohibited substances added The following substances were added to the list in response to customers' requests: - The following substances were added to No. 12 Phthalate esters. 16. 1,2-benzenedicarboxyl acid, di-C6-10 alkyl esters with ≥0.3% of dihexyl phthalate, 1,2-benzenedicarboxyl acid, mixed decyl and hexyl and octyl diesters with ≥0.3% of dihexyl phthalate. - Nine (9) types were added to No. 23 Polycyclic aromatic hydrocarbons (PAHs) Benzo[r,s,t]pentaphene, Dibenzo[a,h]acridine, Dibenzo[a,j]acridine, Dibenzo[a,e]fluoranthene, Dibenzo[a,e]pyrene, Dibenzo[a,h]pyrene, Dibenzo[a,i]pyrene, 7H-dibenzo[c,g]carbazole, and 5-methylchrysene</p> <p>Threshold levels modified for prohibited substances The following threshold levels were modified in response to customers' requests: - No. 7 PCN, PCB, PCT, and their substitutes For polychlorinated naphthalenes (PCNs), the threshold level of impurities was changed from 50 ppm to 5 ppm. For polychlorinated biphenyls (PCBs), the threshold level of impurities was changed from 50 ppm to "Prohibited its impurity detected through component analysis (0.1 ppm or less)." For polychlorinated naphthalenes (PCNs), the threshold level of impurities was changed from 50 ppm to 5 ppm. - No. 11 Azo pigment and azo dye For the applications for fiber and leather products, the threshold was changed from 20 ppm to 30 ppm. - No. 23 Polycyclic aromatic hydrocarbons (PAHs) "Total of 18 kinds is below 10 ppm and below 1 ppm for each of 8 kinds" was changed to "1 ppm for each and 10 ppm for a total of 27 kinds." - No. 24 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances For the specific benzotriazole 2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-butylphenol, the threshold level of Impurities and residues was added as a total of 5 ppm. - No. 26 Formaldehyde The threshold level was changed to from 0.1 mL/m³ (ppm) to 0.1 mL/m³ (ppm) and 300 ppm, and supplemental explanation about the threshold level was changed. - No. 40 Perchlorates The threshold level was changed from 1,000 ppm to 0.1 ppm.</p> <p>Controlled substances added The following substances below were added to the list in response to customers' requests and revision of laws and regulations: - No. 5 Proposition 65 List of Chemicals - No. 6 Washington State's List of Chemicals of High Concern to Children (CHCC) - No. 7 1-bromopropane</p> <p>Other changes - No. 27 Pentachlorophenols (PCPs) of the prohibited substance was moved to No. 24 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances and the name of substances was changed to "Pentachlorophenol or its chlorides or esters." In response to this, Nos. 28 through 43 of the prohibited substance were moved up to Nos. 27 through 42. - Reference URLs were added and errors in descriptions, etc., were corrected.</p> <p>Changes in EU RoHS exemption - In the date of expiration for the following exemption codes, the wording "(Under extended review)" was added. 1(a), 1(b), 1(c), 1(d), 1(e), 1(f), 2(a)(1), 2(a)(2), 2(a)(3), 2(a)(4), 2(a)(5), 2(b)(3), 2(b)(4), 3(a), 3(b), 3(c), 4(a), 4(b)-I, 4(b)-II, 4(b)-III, 4(c)-I, 4(c)-II, 4(c)-III, 4(e), 4(f), 5(b), 6(a), 6(b), 6(c), 7(a), 7(c)-I, 7(c)-II, 7(c)-IV, 8(b), 9(b), 13(a), 13(b), 15, 18(b), 21, 24, 29, 32, 34, 37 - The following exemption codes were changed to exemption expiration. 1(g), 5(a), 7(b), 9, 17, 25, 30, 31, 33, 38</p>	Apr. 1, 2017
6.00	<p>Prohibited substances added The following substances were added to the list in response to revision of laws: - No. 24 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances Decabromodiphenyl ethers. and Short-chain chlorinated paraffins</p> <p>Threshold levels modified for prohibited substances The following threshold levels were modified in response to revision of laws: - No. 37 Perfluorooctanoic acid (PFOA) Threshold level was added to Remarks by revision of EU REACH ANNEX XVII(Restricted substances). - No. 41 EU REACH ANNEX XVII Threshold level was modified appropriately.</p> <p>Controlled substances added The following substances below were added to the list in response to customers' requests and revision of laws and regulations: - No. 8 Phosphorus flame retardant - No. 9 Red phosphorus</p>	Apr. 1, 2018

	<p>Other changes</p> <ul style="list-style-type: none"> - Reference URLs were modified and errors in descriptions, etc., were corrected. 	
7.00	<p>Prohibited substances added</p> <p>The following substances were added to the list in response to customers' requests:</p> <ul style="list-style-type: none"> - The following substances were added to No.12 Phthalate esters <ul style="list-style-type: none"> 19) Diundecyl phthalate (DuDP) 20) Dicyclohexyl phthalate (DCHP) 21) Diisohexyl phthalate (DiHP) <p>Threshold levels modified for prohibited substances</p> <p>The following threshold levels were modified in response to customers' requests:</p> <ul style="list-style-type: none"> - No. 24 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances <p>"Impurities and residues of HBCDD are limited to a total of 100 ppm." was added to Remarks for Hexabromocyclododecane (HBCDD).</p> <p>Controlled substances added</p> <p>The following substances below were added to the list in response to customers' requests and revision of laws and regulations:</p> <ul style="list-style-type: none"> - No. 10 Bisphenol F, Bisphenol S - No. 11 Volatile Organic Compounds (VOCs) - No. 12 Cobalt and its compounds - No. 13 Endocrine Disrupting Chemicals (EDCs) - No. 14 IEC 62474 Substances - No. 15 Indium Phosphide - No. 16 Per- and Polyfluoroalkyl Substances (PFAS) <p>Other changes</p> <ul style="list-style-type: none"> - Referenced laws and regulations for prohibited substance No. 27 Benzenamine,N-Phenyl-, Reaction Products with Styrene and 2,4,4- Trimethylpentene (BNST) were changed from "Canadian Environmental Protection Act, 1999" to "JDI self-regulation." - Reference URLs were modified and errors in descriptions, etc., were corrected. 	Apr. 1, 2019
8.00	<p>Prohibited substances added</p> <p>The following substance was added to the list in response to customers' requests:</p> <ul style="list-style-type: none"> - No. 32 Tetrabromobisphenol-A (TBBP-A) <p>Threshold levels modified for prohibited substances</p> <p>The following threshold levels were modified in response to customers' requests and revision of laws and regulations:</p> <ul style="list-style-type: none"> - No. 17 Perfluorooctanoic acid (PFOA) and its salts and related substances <p>"Prohibition of intentional addition other than coating materials" was changed to "All uses (Excluding the exempted applications in EU REACH ANNEX XVII)," "25 ppb (as PFOA and its salts)," and "1000 ppb (as a total of PFOA-related substances)."</p> <p>Referenced laws and regulations were changed from "JDI self-regulation" to "EU REACH ANNEX XVII (Restricted substances)" and "Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances."</p> <p>Other changes</p> <ul style="list-style-type: none"> - Names of the following substances were modified: <p>PFOS and its salts were modified to Perfluorooctane sulfonic acid (PFOS) and its salts.</p> <p>Perfluorooctanoic acid (PFOA) was modified to Perfluorooctanoic acid (PFOA) and its salts and related substances.</p> <p>The substances in the table were rearranged as follows along with addition of entries:</p> <ul style="list-style-type: none"> No. 17 to No. 18 Dimethyl fumarate (DMF) No. 18 to No. 19 Ozone depleting substances No. 19 to No. 20 Fluorine based greenhouse gases (PFC, HFC and SF6) No. 20 to No. 21 Barium No. 21 to No. 22 Chromium No. 22 to No. 23 Selenium No. 23 to No. 24 Polycyclic aromatic hydrocarbons (PAHs) No. 24 to No. 25 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Class I Specified Chemical Substances No. 25 to No. 26 Radioactive substances No. 26 to No. 27 Formaldehyde No. 27 to No. 28 Benzenamine,N-Phenyl-, Reaction Products with Styrene and 2,4,4- Trimethylpentene (BNST) No. 28 to No. 29 Phenol, n-methyl- No. 29 to No. 30 Halogenated compounds (Chlorine-Bromine) No. 30 to No. 31 Polyvinyl chloride (PVC) and its compounds No. 31 to No. 33 Antimony and its compounds No. 32 to No. 34 Arsenic and its compounds No. 33 to No. 35 Beryllium and its compounds No. 34 to No. 36 Bisphenol A No. 35 to No. 37 Natural rubber 	Apr. 1, 2020

	<p>No. 36 to No. 17 Perfluorooctanoic acid (PFOA) and its salts and related substances No. 37 to No. 38 4-(Isopropylamino)diphenylamine No. 38 to No. 39 Nonylphenol (NP) and nonylphenol ethoxylates (NPE) No. 39 to No. 40 Tris(2-chloroethyl) phosphate (TCEP) No. 40 to No. 41 Perchlorates No. 41 to No. 42 EU REACH ANNEX XIV No. 42 to No. 43 EU REACH ANNEX XVII</p>	
	<p>Changes in EU RoHS exemption - Annex [RoHS Exemption List] was deleted. As its replacement, a URL of IEC 62474 website was presented to refer to Exemption Lists in the website.</p>	
9.00	<p>【New addition of banned substances】 The following prohibited substances were newly added in response to requests from customers and revisions to laws and regulations. •No.44 Specific Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances (LCPFACs)</p> <p>【Other changes】 •No.25 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. The names of Class I specified chemical substances were deleted and the URL of the reference website was added instead.</p>	Apr. 1, 2021
9.10	<p>【New addition of banned substances】 The following prohibited substances were newly added in response to requests from customers and revisions to laws and regulations. •No.45 5 PBT (Persistent, Bioaccumulative and Toxic) Substances •No.46 Perfluorohexane Sulfonates (PFHxS) and its salts and PFHxS-related substances •No.47 Dechlorane Plus •No.48 List of the First 10 Chemical Substances Undergoing TSCA's Risk Evaluation</p> <p>【Controlled substances changed to Prohibited substances】 The following substance was changed from Controlled substances to Prohibited substances in response to customers' requests: - No. 7 1-Bromopropane (1-Bromopropane is included in "No48 List of the First 10 Chemical Substances Undergoing TSCA's Risk Evaluation".)</p> <p>【Other changes】 The Controlled substances in the table were rearranged as follows along with addition of entries: No. 8 to No. 7 Phosphorus flame retardant No. 9 to No. 8 Red phosphorus No. 10 to No. 9 Bisphenol F, Bisphenol S No. 11 to No. 10 Volatile Organic Compounds (VOCs) No. 12 to No. 11 Cobalt and its compounds No. 13 to No. 12 Endocrine Disrupting Chemicals (EDCs) No. 14 to No. 13 IEC 62474 Substances No. 15 to No. 14 Indium Phosphide No. 16 to No. 15 Per- and Polyfluoroalkyl Substances (PFAS)</p>	Apr. 1, 2021
10.00	<p>【New addition of banned substances】 The following prohibited substances were newly added in response to requests from customers and revisions to laws and regulations: •No.49 n-Hexane •No.50 9-14C perfluorocarboxylic acid (C9-C14 PFCAs) and their salts and C9-C14 PFCA-related substances •No.51 Decabromodiphenylethane (DBDPE) •No.52 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) •No.53 Prohibited substances in the GADSL</p> <p>【Threshold levels modified for prohibited substances】 The following threshold levels were modified in response to customers' requests: •No. 1 Lead and its compounds The threshold level of other than resin materials and skin-contact use is changed from "800 ppm" to "Prohibited intentionally added and 800 ppm." •No. 4 Hexavalent chromium and its compounds Added threshold level 1 ppm for wearable products/parts •No. 6 Polybrominated diphenylethers (PBDEs) Changed threshold level of impurity content from "500 ppm" to "10 ppm per each PBDE, 500 ppm in total." •No. 24 Polycyclic aromatic hydrocarbons (PAHs) Changed from 1 ppm for each to 0.5 ppm for each. •No. 46 Perfluorohexane Sulfonates (PFHxS) and its salts and PFHxS-related substances Added threshold level of impurity content "25 ppb in total of PFHxS and its salt, 1000 ppb in total of PFHxS-related substances."</p> <p>【Controlled substances added】 The following controlled substances were newly added in response to requests from customers and revisions to laws and regulations. •No. 9 Bisphenol Chemicals * Bisphenol F and S are changed to Bisphenol Chemicals. •No. 16 Perfluorohexanoic acid (PFHxA) and its salts and PFHxA-related substances •No. 17 Melamine •No. 18 N-Ethyl-2-pyrrolidone</p> <p>【Other changes】 Reference URLs were modified and errors in descriptions, etc., were corrected.</p>	Apr. 1, 2022