

List of Banned and Controlled Substances

This list was prepared based on appendix A-1. list of substance groups surveyed and appendix A-2. list of REACH-compliant SVHC in version 1.1 of the survey of chemical substances contained in products and manual for survey responses supplied by the Japan VT62474 sub-committee of the IEC/TC111 Japan National Committee, which was established in April 2012. It was also prepared based on portions of the Japanese version of JIG-101 Ed. 4.1 annex A and the IEC62474 DB substance list.

Note: For more information about the activities of the VT62474 sub-committee, refer to the Japan VT62474 website. <http://www.vt62474.jp/>

Classification	Supplemental Information
Banned	Substances indicated in the Reportable Application(s) column are banned from being added intentionally. Content level must not exceed the threshold level, if indicated.
Controlled	Content levels that exceed the threshold level must be reported. Content levels below the threshold level are treated as no content.

[NOTE]

- Substances that exceed the threshold content level must be reported, regardless of classification. The definition of "molded parts" conforms to the definition in respective laws and regulations.
- Due to the use of specific substances in special applications, do not ban or report a substance if specified accordingly on drawings or other documentation. However, their content is prohibited unless expressly permitted in drawings or other documentation.
- There are applications of substances listed in REACH annex XVII that are allowed to use for a limited period. For such applications, Shimadzu permits usage up to one year prior to the indicated time limit.
Example: Use of dibutyltin compounds (DBT) in RTV sealants. In general, substances listed in REACH annex XIV are prohibited one year prior to the sunset date.
- Indications such as "Must comply with RoHS" and "Must satisfy RoHS standards" in Shimadzu drawings, specifications or other documentation mean that the content of substances banned by the RoHS Directive (indicated by "Banned under RoHS" in the remarks column below) must not exceed the specified threshold value.
- Similarly, "Must not contain any banned substances per Shimadzu Green Procurement Standards" indicates that the content of banned substances must not exceed the threshold value. Applications exempt from the RoHS Directive are indicated in the attached RoHS Directive Exemptions - Table 1 (MT83-6029) and RoHS Directive Exemptions - Table 2 (MT83-6030).
- JGPSSI substance group classification numbers in the form "Axx" (such as "A09") indicate metal compounds, "Bxx" (such as "B08") indicate organohalogen compounds, and "Cxx" (such as "C09") indicate other compounds. Substances without a classification number are indicated with a dash.
Note: JGPSSI (Japan Green Procurement Survey Standardization Initiative) is the organization that preceded the VT62474 sub-committee.
- This table treats even single substances as a substance group.
- The separate list indicated in the CAS No. column refers to the appendix Detailed Substance Lists (MT83-6015).
- The substitution deadline for the four phthalate esters added to the RoHS Directive are indicated in the remarks column for respective substances.

■ List of Substance group

No.	Classification	JGPSSI Classification No.	Substance Group	CAS No.	Reportable Application(s)	Threshold Level (Reporting level)	Key Legal and Regulatory or Industry Standard/Agreement Citation	Remarks
1	Banned	A05	Cadmium/cadmium compounds	See another list	All, except batteries	Intentionally added or 0.01% by weight (100 ppm) of homogeneous materials	ANNEX XVII of REACH Regulation (EC) No 1907/2006; Directive 2011/65/EU; China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50; Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.06.2013)	Banned under RoHS
	Banned	A05	Cadmium/cadmium compounds		Batteries	0.001% by weight (10 ppm) of cadmium in battery	Korean Quality Management and Safety Control of Industrial Products Act; EU Battery Directive 2006/66/EC; Chinese Standard GB 24427-2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries"	
2	Banned	A07	Chromium VI compounds	See another list	All	Intentionally added or 0.1% by weight (1 000 ppm) of chromium (VI) in homogeneous materials	Directive 2011/65/EU; China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50	Banned under RoHS
3	Banned	A09	Lead/lead compounds	See another list	All, except as noted below	Intentionally added or 0.1% by weight (1 000 ppm) of lead in homogeneous materials	Directive 2011/65/EU; ANNEX XVII of REACH Regulation (EC) No 1907/2006; China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50	Banned under RoHS
	Banned	A09	Lead/lead compounds		Consumer products designed or intended primarily for children 12 years of age or younger	0.01% by weight (100 ppm) of lead in the children's product	U.S. Consumer Product Safety Improvement Act as amended by HB 2715	
	Banned	A09	Lead/lead compounds		Paint and similar surface coatings of toys and other articles intended for use by children	0.009% by weight (90 ppm) of lead in surface coating	U.S. Consumer Product Safety Improvement Act	
	Banned	A09	Lead/lead compounds		Cables/cords with thermoset or thermoplastic coatings	0.03% by weight (300 ppm) of lead in surface coating	US/CA Proposition 65 Case law	
	Banned	A09	Lead/lead compounds		Batteries	0.004% by weight (40 ppm) of lead in battery	EU Battery Directive 2006/66/EC; Chinese Standard GB 24427-2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries"	
4	Banned	A10	Mercury/mercury compounds	See another list	All, except batteries	Intentionally added or 0.1% (1 000 ppm) of mercury in homogeneous material 8	Vermont act relating to comprehensive management of exposure to mercury; Rhode Island General Laws 23-24.9 and amendment of 2007; Louisiana Mercury Risk Reduction Act; ANNEX XVII of REACH Regulation (EC) No 1907/2006; Directive 2011/65/EU; China MII Methods; Korea RoHS; Japan J-MOSS; US/CA SB-20/50	Banned under RoHS
	Banned	A10	Mercury/mercury compounds		Batteries	Intentionally added or 0.0001% by weight (1 ppm) of mercury in the battery 8 (1ppm)	Rhode Island & Connecticut Mercury Reduction and Education Acts; New York Env Law § 27-0719 Battery Management and Disposal; Taiwan Restrictions on the Manufacture, Import, and Sale of Dry Cell Batteries; Korea: Law on quality management and control of safety of industrial products Battery regulation; EU Battery Directive 2006/66/EC; Chinese Standard GB 24427-2009 "Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries"	
5	Banned	A11	Nickel	7440-02-0	All, where prolonged skin contact is expected	Intentionally added	ANNEX XVII of REACH Regulation (EC) No 1907/2006	
6	Banned	A17	Tributyl Tin Oxide (TBTO)	56-35-9	All	Intentionally added or 0.1% by weight (1,000 ppm) of the product	Japan Law concerning the evaluation of chemical substances Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	
7	Banned	A28	Tri-substituted organostannic compounds	See another list	All	Intentionally added or 0.1% by weight (1,000 ppm) of tin in a material	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010; Japan Law concerning the evaluation of chemical substances Norwegian product regulation	

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8	Banned	A23	Dibutyltin (DBT) compounds	See another list	All	0.1% by weight (1,000 ppm) of tin in a material	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	
9	Banned	A24	Diocetyl tin (DOT) compounds	See another list	(a) textile and leather articles intended to come into contact with the skin, (b) childcare articles (c) twocomponent room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1% by weight (1,000 ppm) of tin in a material	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 276/2010	
10	Banned	B02	Polybrominated Biphenyls (PBBs)	See another list	All	Intentionally added or 0.1% by weight (1,000 ppm) in homogeneous material	Directive 2011/65/EU; China MII Methods; Korea RoHS; Japan J-MOSS	Banned under RoHS
11	Banned	B03	Polybrominated Diphenylethers (PBDEs)	See another list	All	Intentionally added or 0.1% by weight (1,000 ppm) in homogeneous material	Directive 2011/65/EU; China MII Methods; Korea RoHS; Japan J-MOSS, Japan Law concerning the evaluation of chemical substances	Banned under RoHS
12	Banned	B05	Polychlorinated Biphenyls (PCBs) and specific substitutes	See another list	All	Intentionally added	Japan Law concerning the evaluation of chemical substances; ANNEX XVII of REACH Regulation (EC) No 1907/2006; US TSCA.	
13	Banned	B15	Polychlorinated Terphenyls (PCTs)	See another list	All	0.005% by weight (50 ppm) in material	ANNEX XVII of REACH Regulation (EC) No 1907/2006;	
14	Banned	B06	Polychlorinated Naphthalenes (more than 3 chlorine atoms)	See another list	All	Intentionally added	Japan Law concerning the evaluation of chemical substances	
15	Banned	B12	Perchlorates	See another list	All	0.0000006% by weight (0.006 ppm) of the product	US/ California - Perchlorate Contamination Prevention Act of 2003	
16	Banned	B13	Perfluorooctane sulfonate (PFOS)	See another list	All	Intentionally added or 0.1% by weight (1,000 ppm) in material	Stockholm convention on Persistent Organic Pollutants; Commission Regulation (EU) No 757/2010; Canadian Environmental Protection Act SOR/ 2008-178; Japan Law concerning the evaluation of chemical substances	
17	Banned	B10	Fluorinated greenhouse gases (PFC, SF6, HFC)	See another list	All	Intentionally added	EU Reg. No. 842/2006	
18	Banned	C01	Asbestos	See another list	All	Intentionally added	ANNEX XVII of REACH Regulation (EC) No 1907/2006; US TSCA; Swiss Ordinance on Reduction of Risk from Chemical Products	
19	Banned	C02	Azocolourants and azodyes which form certain aromatic amines	See another list	Textiles and leather	0.003% by weight (30 ppm) of the finished textile/leather product 1	ANNEX XVII of REACH Regulation (EC) No 1907/2006;	
20	Banned	C04	Ozone Depleting Substances	See another list	All	Intentionally added	Montreal Protocol EU EC No. 2037/2000 EC 1005/2009 US Clean Air Act	
21	Banned	C06	Radioactive substances	See another list	All	Intentionally added	EU-D 96/29/Euratom; Japan Law for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986; Japan Law Concerning Prevention from Radiation Hazards; US NRC	
22	Banned	C07	Formaldehyde	See another list	Textiles	0.0075% by weight (75 ppm) of textile product	Austria - BGB I 1990/194: Formaldehydverordnung, §2, 12/2/1990; Lithuanian Hygiene Norm HN 96:2000 (Hygiene standards and regulations)	
	Banned	C07	Formaldehyde		Composite wood (plywood, particle board, medium density fiberboard) products or components	Intentionally added	US/CA CARB Rule US Federal Law 111-199/TSCA Section 601	

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23	Banned	C08	Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)	3846-71-7	All	Intentionally added or 0.1% by weight (1,000 ppm) of the Article	Japan Law concerning the evaluation of chemical substances Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2014)	
24	Banned	C09	Selected Phthalates Group 1 (BBP, DBP, DEHP)	See another list	Children's toy or child care article	0.1% by weight (1,000 ppm) in plasticized material	ANNEX XVII of REACH Regulation (EC) No 1907/2006; U.S. Consumer Product Safety Improvement Act	The threshold level is the sum of the phthalate concentrations
25	Banned	C10	Selected Phthalates Group 2 (DIDP, DINP, DNOP)	See another list	Children's toy or child care article that can be placed in a child's mouth	0.1% by weight (1,000 ppm) in plasticized material	ANNEX XVII of REACH Regulation (EC) No 1907/2006; U.S. Consumer Product Safety Improvement Act	The threshold level is the sum of the phthalate concentrations
26	Banned	C11	Dimethyl fumarate	624-49-7	All	0.00001% by weight (0.1 ppm) in a material	COMMISSION DECISION 2009/251/EC	
27	Banned	A20	Diarsenic Pentoxide	1303-28-2	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	ANNEX XIV of REACH Sunset date: 21.05.2015
28	Banned	A21	Diarsenic Trioxide	1327-53-3	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	ANNEX XIV of REACH Sunset date: 21.05.2015
29	Banned	B11	Hexabromocyclododecane(HBCDD) and all major diastereoisomers	See another list	All	Intentionally added or 0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	ANNEX XIV of REACH Sunset date: 21.08.2015
30	Banned	B09	Shortchain Chlorinated Paraffins (C10 – C13)	See another list	All	Intentionally added or 0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008), Norway Product Regulations FOR-2004-06-01-922; Swiss Ordinance on Reduction of Risk from Chemical Products	
31	Banned	B16	Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 13.01.2010)	ANNEX XIV of REACH Sunset date: 21.08.2015
32	Banned	A25	Lead chromate	7758-97-6	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 13.01.2010)	ANNEX XIV of REACH Sunset date: 21.05.2015
33	Banned	A26	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 13.01.2010)	ANNEX XIV of REACH Sunset date: 21.05.2015
34	Banned	A27	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 13.01.2010)	ANNEX XIV of REACH Sunset date: 21.05.2015
35	Banned	A29	Strontium chromate	7789-06-2	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	ANNEX XIV of REACH Sunset date: 22.01.2019
36	Banned	A30	Potassium hydroxyoctaoxodizincate dichromate	11103-86-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS ANNEX XIV of REACH Sunset date: 22.01.2019
37	Banned	A31	Pentazinc chromate octahydroxide	49663-84-5	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS ANNEX XIV of REACH Sunset date: 22.01.2019
38	Banned	B23	Decabromodiphenyl ether	1163-19-5	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
39	Banned	A48	Sulfurous acid, lead salt, dibasic	62229-08-7	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
40	Banned	A49	Trilead dioxide phosphonate	12141-20-7	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
41	Banned	C40	4-Aminoazobenzene	60-09-3	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	

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42	Banned	A50	Tetralead trioxide sulfate	12202-17-4	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
43	Banned	A51	Orange lead (lead tetroxide)	1314-41-6	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
44	Banned	A52	Pyrochlore, antimony lead yellow	8012-00-8	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
45	Banned	A53	Pentalead tetraoxide sulphate	12065-90-6	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
46	Banned	A54	Dibutyltin dichloride (DBTC)	683-18-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	
47	Banned	A55	Lead cyanamide	20837-86-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
48	Banned	A56	Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped	68784-75-8	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
49	Banned	A57	Lead titanium trioxide	12060-00-3	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
50	Banned	A58	Lead titanium zirconium oxide	12626-81-2	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
51	Banned	A59	Lead oxide sulfate	12036-76-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
52	Banned	A60	[Phthalato(2-)]dioxotrilead	69011-06-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
53	Banned	A61	Dioxobis(stearato)trilead	12578-12-0	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
54	Banned	A62	Fatty acids, C16-18, lead salts	91031-62-8	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
55	Banned	A63	Lead dinitrate	10099-74-8	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	Banned under RoHS
56	Banned	—	Specific Heavy Metals Cd/Cd Compounds; Pb/Pb Compounds; Hg/Hg Compounds; CrVI Compounds	—	Packaging, packaging component	Intentionally added or 0.01% by weight (100ppm) of the sum of Cd, Hg, Pb, Cr ⁶⁺ in the material	EU 94/62/EC Directive; US State Toxic in Packaging (TIP)	Packaging
57	Banned	—	Cadmium oxide	1306-19-0	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.6.2013)	Banned under RoHS
58	Banned	—	Pentadecafluorooctanoic acid (PFOA)	335-67-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.6.2013)	
59	Banned	—	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.6.2013)	
60	Banned	—	Cadmium sulphide	1306-23-6	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2013)	Banned under RoHS

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61	Banned	C12	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	All	Intentionally added or 0.1% by weight (1,000 ppm) in homogeneous material	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	Banned under RoHS 【Limit of substitution : 31.12.2018】; ANNEX XIV of REACH Sunset date : 21.02.2015
62	Banned	C13	Dibutylphthalate (DBP)	84-74-2	All	Intentionally added or 0.1% by weight (1,000 ppm) in homogeneous material	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	Banned under RoHS 【Limit of substitution : 31.12.2018】; ANNEX XIV of REACH Sunset date : 21.02.2015
63	Banned	C14	Butyl benzyl phthalate (BBP)	85-68-7	All	Intentionally added or 0.1% by weight (1,000 ppm) in homogeneous material	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	Banned under RoHS 【Limit of substitution : 31.12.2018】; ANNEX XIV of REACH Sunset date : 21.02.2015
64	Banned	C15	Diisobutyl phthalate (DIBP)	84-69-5	All	Intentionally added or 0.1% by weight (1,000 ppm) in homogeneous material	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	Banned under RoHS 【Limit of substitution : 31.12.2018】; ANNEX XIV of REACH Sunset date : 21.02.2015
65	Controlled	A19	Beryllium Oxide (BeO)	1304-56-9	All	0.1% by weight (1,000 ppm) of the Article	DIGITALEUROPE 2/CECED/AeA 3/ EERA guidance	
66	Controlled	B08	Brominated flame retardants (other than PBBs,PBDEs, or HBCDD)	See another list	Plastic materials except printed wiring board laminates	0.1% total bromine content by weight (1,000 ppm) in the plastic material	JS709	
	Controlled	B08	Brominated flame retardants (other than PBBs,PBDEs, or HBCDD)		Printed wiring board laminate	0.09% total bromine content by weight (900 ppm) in the laminate	IPC-4101 and IEC 61249-2-21	
67	Controlled	B18	Chlorinated flame retardants	See another list	Plastic materials except printed wiring board laminates 4	0.1% total chlorine content by weight (1,000 ppm) in the plastic material	JS709	
	Controlled	B18	Chlorinated flame retardants		Printed wiring board laminate 4	0.09% total chlorine content by weight (900 ppm) in the laminate	IPC-4101 and IEC 61249-2-21	
68	Controlled	B19	Polyvinyl Chloride (PVC) and PVC Copolymers	See another list	Plastic materials except printed wiring board laminates 4	0.1% total chlorine content by weight (1,000 ppm) in the plastic material	JS709	
69	Controlled	C47	Di-isodecyl phthalate (DIDP)	68515-49-1 26761-40-0	All	Intentionally added	US/CA Proposition65	
70	Controlled	C48	Di-n-hexyl Phthalate (DnHP)	84-75-3	All	Intentionally added or 0.1% by weight (1,000 ppm) of the Article	US/CA Proposition65; Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 16.12.2013)	
71	Controlled	A22	Cobalt dichloride (CoCl ₂)	7646-79-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 28.10.2008)	
72	Controlled	C16	Refractory Ceramic Fibres, Aluminosilicate	-	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	
73	Controlled	C17	Refractory Ceramic Fibres, Zirconia Aluminosilicate	-	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	
74	Controlled	C18	Boric acid	10043-35-3 11113-50-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	
75	Controlled	C19	Disodium tetraborate, anhydrous	See another list	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	

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76	Controlled	C20	Tetraboron disodium heptaoxide, hydrate	12267-73-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	
77	Controlled	C21	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.06.2011)	
78	Controlled	C22	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.06.2011)	
79	Controlled	B17	4-[4,4'-bis(dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	
80	Controlled	B20	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	ANNEX XIV of REACH Sunset date: 22.11.2017
81	Controlled	C23	Bis(2-methoxyethyl) phthalate	117-82-8	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	
82	Controlled	C24	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	
83	Controlled	C25	Bis(2-methoxyethyl) ether	111-96-6	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	ANNEX XIV of REACH Sunset date: 22.08.2017
84	Controlled	C26	N,N-dimethylacetamide (DMAC)	127-19-5	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2011)	
85	Controlled	C38	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2010)	
86	Controlled	C39	1,2-dimethoxyethane; ethyleneglycol dimethyl ether (EGDME)	110-71-4	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2012)	
87	Controlled	C41	1,2-Diethoxyethane	629-14-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2012)	
88	Controlled	C42	Diboron trioxide	1303-86-2	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 18.06.2012)	
89	Controlled	C43	N,N-dimethylformamide	68-12-2	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2012)	
90	Controlled	C44	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2012)	
91	Controlled	C45	Diisopentylphthalate (DIPP)	605-50-5	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2012)	
92	Controlled	C46	N-pentyl-isopentylphthalate	776297-69-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2012)	
93	Controlled	—	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0 19438-60-9 48122-14-1 57110-29-9	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2012)	
94	Controlled	—	Dipentyl phthalate (DPP)	131-18-0	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.06.2013)	
95	Controlled	—	4-Nonylphenol, branched and linear, ethoxylated	-	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 20.06.2013)	

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96	Controlled	—	Trixylyl phosphate	25155-23-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2013)	
97	Controlled	—	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2013)	
98	Controlled	—	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2013)	
99	Controlled	—	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2013)	
100	Controlled	—	Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	All	Intentionally added	California Proposition65	
101	Controlled	—	Polycyclic aromatic hydrocarbon (PAH)	See another list	Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	0.0001 mass% (1ppm) of the plastic or rubber part	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	
102	Controlled	—	Polycyclic aromatic hydrocarbon (PAH)		Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 mass% (0.5ppm) of the plastic or rubber part	ANNEX XVII of REACH Regulation (EC) No 1907/2006 and Commission Regulation (EU) No 1272/2013	
103	Controlled	—	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 19.12.2013)	
104	Controlled	—	Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)	68921-45-9	All	0.1% by weight (1,000 ppm) of the Article	Prohibition of Certain Toxic Substances Regulations, 2012, CANADA	
105	Controlled	—	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2014)	
106	Controlled	—	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)		All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2014)	
107	Controlled	—	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2014)	
108	Controlled	—	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5 68648-93-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 15.6.2015)	
109	Controlled	—	Nitrobenzene	98-95-3	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2015)	
110	Controlled	—	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2015)	

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111	Controlled	—	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2015)	
112	Controlled	—	1,3-propanesultone	1120-71-4	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2015)	
113	Controlled	—	Perfluorononan-1-oic-acid and its sodium and ammonium salts	See another list	All	0.1% by weight (1,000 ppm) of the Article	Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC for authorization 17.12.2015)	