

Table 3.1 Chemical substances prohibited by Maxell (Level 1)

No.	Environmental Controlled Substances	Name of Substance	CAS No.	Controlled Value
1	Cadmium and its compounds *1	Cadmium Cadmium oxide Cadmium sulfide Cadmium chloride Cadmium sulfate Other cadmium compounds	7440-43-9 1306-19-0 1306-23-6 10108-64-2 10124-36-4 —	100ppm, 100ppm(Package)*2 or Intentional
2	Hexavalent chromium and its compounds *1	Sodium dichromate Sodium dichromate Chromium trioxide Calcium chromate Lead(II)chromate Potassium dichromate Potassium chromate Chromium(VI)oxide Barium chromate Sodium chromate Strontium chromate Zinc chromate Other hexavalent chromium compounds	10588-01-9 7789-12-0 1333-82-0 13765-19-0 7758-97-6 7778-50-9 7789-00-6 1333-82-0 10294-40-3 7775-11-3 7789-06-2 13530-65-9 —	1000ppm, 100ppm(Package)*2 or
3	Lead and its compounds *1	Lead Lead(II)carbonate Lead(IV)oxide Lead(II,IV)oxide Lead(II)sulfide Lead(II)oxide Lead(II)carbonate basic Lead hydroxidcarbonate Lead(II)sulfate Lead(II)phosphate Lead(II)chromate Lead(II)titanate Lead sulfate Lead acetate Lead(II)acetate, trihydrate	7439-92-1 598-63-0 1309-60-0 1314-41-6 1314-87-0 1317-36-8 1319-46-6 1344-36-1 7446-14-2 7446-27-7 7758-97-6 12060-00-3 15739-80-7 301-04-2 6080-56-4	1000ppm, 100ppm(Package)*2,

*1 The metal contains the alloy.

*2 The chemical substances contained in the package are less than 100ppm on four metals total.

No.	Environmental Controlled Substances	Name of Substance	CAS No.	Controlled Value
3	Lead and its compounds *1	Lead phosphate Lead selenide Lead sulphate, tribasic Lead stearate Lead hydrogen arsenate Other lead compounds	7446-27-7 12069-00-0 12202-17-4 1072-35-1 7784-40-9 —	1000ppm, 100ppm (Package) *2,
4	Mercury and its compounds *1	Mercury Mercuric chloride Mercury (II) chloride Mercury (II) oxide Mercuric sulfate Mercuric nitrate Mercuric sulfide Other mercury compounds	7439-97-6 10112-91-1 7487-94-7 21908-53-2 7783-35-9 10045-94-0 1344-48-5 —	1000ppm, 100ppm (Package) *2 or
5	Polybrominated biphenyls (PBBs) Polybrominated diphenyl ethers (PBDEs)	Polybrominated biphenyls Pentabromodiphenylether 2-Bromobiphenyl 3-Bromobiphenyl 4-Bromobiphenyl Bromobiphenylethers Decabromobiphenyl Decabromobiphenylethers Dibromobiphenyl Dibromobiphenylethers Heptabromobiphenylether Hexabromobiphenyl Hexabromo-1,1.-biphenyl Hexabromobiphenylethers Nonabromobiphenylether Octabromobiphenyl Octabromodiphenylether Tetrabromobiphenyl Tetrabromobiphenylethers Tribromobiphenylether Hexabromobiphenyls mixture	59536-65-1 32534-81-9 2052-07-5 2113-57-7 92-66-0 101-55-3 13654-09-6 1163-19-5 92-86-4 2050-47-7 68928-80-3 59080-40-9 36355-01-8 36483-60-0 63936-56-1 61288-13-9 32536-52-0 40088-45-7 40088-47-9 49690-94-0 67774-32-7	1000ppm

*1 The metal contains the alloy.

*2 The chemical substances contained in the package are less than 100ppm on four metals total.

No.	Environmental Controlled Substances	Name of Substance	CAS No.	Controlled Value
6	Tributyltins (TBTs) Triphenyltins (TPTs) *3	Tributyltin chloride Triphenyltin chloride Bis(tri-n-butyltin)oxide Triphenyl tin N, N' - dimethyldithiocarbamate Triphenyltin fluoride Triphenyltin acetate Triphenyltin hydroxide Triphenyltin fatty acid salts (C=9-11) Triphenyltin chloroacetate Tributyltin methacrylate Bis(tributyltin) fumarate Tributyltin fluoride Bis(tributyltin) 2,3-dibromosuccinate Tributyltin acetate Tributyltin laurate Bis(tributyltin) phthalate Tributyltin sulfamate Bis(tributyltin) maleate Other tributyltin compounds Other triphenyltin compounds	1461-22-9 639-58-7 56-35-9 1803-12-9 379-52-2 900-95-8 76-87-9 47672-31-1 7094-94-2 2155-70-6 6454-35-9 1983-10-4 31732-71-5 56-36-0 3090-36-6 4782-29-0 6517-25-8 14275-57-1 — —	Intentional use is prohibited, however, 1000ppm or less as tin
7	Bis tributyltin oxide (TBT0) *3	Bis(tri-n-butyltin) oxide	56-35-9	Intentional use is prohibited, however, 1000ppm or less as tin
8	Polychlorinated biphenyls (PCBs)	Polychlorinated biphenyls Chlorinated terphenyls Aroclor Chlorodiphenyl (aroclor 1260) Kanechlor 500 Aroclor 1254 Terphenyls Other polychlorinated biphenyls	1336-36-3 61788-33-8 12767-79-2 11096-82-5 27323-18-8 11097-69-1 26140-60-3 —	Intentional use is prohibited
9	Polychlorinated terphenyls#2 (PCTs) *3	Polychlorinated terphenyls	61788-33-8	Intentional use is prohibited

*3 The REACH restrictions material which judged that a use, the handling were equivalent to full-scale regulation

No.	Environmental Controlled Substances	Name of Substance	CAS No.	Controlled Value
10	Polychloronaphthalenes (Cln : n \geq 3)	Polychlorinated naphthalenes Octachloronaphthalene Tetrachloronaphthalene Hexachloronaphthalene Other polychlorinated naphthalenes	2234-13-1 70776-03-3 1335-88-2 1335-87-1 —	Intentional use is prohibited
11	Short-chain chlorinated paraffins *3	Chlorinated paraffines (C10-13) Other short-chain chlorinated paraffines	85535-84-8 —	Intentional use is prohibited
12	Asbestos *3	Amosite (Grunerite) Crocidolite Chrysotile Actinolite Anthophyllite Tremolite Other asbestos	12172-73-5 12001-28-4 12001-29-5 77536-66-4 77536-67-5 77536-68-6 1332-21-4	Intentional use is prohibited , however, 1000ppm or less
13	Ozone depleting substances (Class 1)	See Attached list 4	See Attached list 4	Intentional use is prohibited
14	Ozone depleting substances (Class 2) Substitute Freon (HCFCs)	See Attached list 4	See Attached list 4	Intentional use is prohibited
15	Radioactive substances	Uranium (U) Plutonium (Pu) Thorium (Th) Radon (Rn) Americium (Am) Cesium (Cs) Strontium (Sr) Other radioactive substance	7440-61-1 — — — — 7440-46-2 7440-24-6 —	Intentional use is prohibited
16	PFOS <Perfluorooctanesulfonic acid> and its analogous compounds	PFOS and its analogous compounds For substances that apply, see Attached list 5.	See Attached list 5	Intentional use is prohibited

*3 The REACH restrictions material which judged that a use, the handling were equivalent to full-scale regulation

No.	Environmental Controlled Substances	Name of Substance	CAS No.	Controlled Value
17	2-(2H-1,2,3-Benzotriazole-2-YL)-4,6-di-tert-Butylphenol	2-(2H-1,2,3-Benzotriazole-2-YL)	3846-71-7	Intentional use is prohibited
18	Hexachlorobenzene	Hexachlorobenzene	118-74-1	Intentional use is prohibited
19	Dimethyl fulmarate (DMF) #2	Dimethyl fulmarate (DMF)	624-49-7	0.1ppm or less
20	Hexabromocyclododecane (HBCD or HBCDD)	See Attached list 9.	See Attached list 9	

Table 3.2 Controlled substances which actual status of usage should be checked (Level 2)

No.	Environmental Controlled Substances	Name of Substance	CAS No.
1	Bis (2-ethylhexyl) phthalate (DEHP)	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7
2	Benzyl butyl phthalate (BBP)	Benzyl butyl phthalate (BBP)	85-68-7
3	Dibutyl phthalate (DBP)	Dibutyl phthalate (DBP)	84-74-2
4	Diisobutyl phthalate (DIBP)	Diisobutyl phthalate (DIBP)	84-69-5
5	Antimony and its compounds *1	Antimony Stibine (Antimony hydride) Antimony pentoxide Antimony pentafluoride Antimony trioxide Antimony trichloride Sodium antimonite Other antimony compounds	7440-36-0 7803-52-3 1314-60-9 7783-70-2 1309-64-4 10025-91-9 15432-85-6 —
6	Arsenic and its compounds *1	Arsenic (As) Gallium arsenide Arsenic pentoxide Arsenic trioxide Calcium arsenate Calcium arsenite Potassium arsenite Potassium arsenate Lead arsenate Triethyl arsenate Other arsenic compounds	7440-38-2 1303-00-0 1303-28-2 1327-53-3 7778-44-1 27152-57-4 10124-50-2 7784-41-0 3687-31-8 15606-95-8 —
7	Beryllium and its compounds *1	Beryllium Beryllium oxide Beryllium-Aluminum Alloy Beryllium chloride Beryllium fluoride Beryllium hydroxide Beryllium phosphate Beryllium sulfate Beryllium sulfate tetrahydrate Beryl ore Other beryllium compounds	7440-41-7 1304-56-9 12770-50-2 7787-47-5 7787-49-7 13327-32-7 13598-15-7 13510-49-1 7787-56-6 1302-52-9 —

*1 The metal contains the alloy, but Nickel is exempted.

No.	Environmental Controlled Substances	Name of Substance	CAS No.
8	Nickel and its compounds (Exclusion of Alloy)*1, *2	Nickel	7440-02-0
		Nickel(II)oxide	1313-99-1
		Nickel(II)carbonate	3333-67-3
		Nickel(II)sulfate	7786-81-4
		Other nickel compounds	—
9	Selenium and its compounds *1	Selenium	7782-49-2
		Hydrogen selenide	7783-07-5
		Selenium dioxide	7446-08-4
		Selenium hexafluoride	7783-79-1
		Sodium selenide	1313-85-5
		Sodium selenate	10112-94-4
		Dimethyl selenide	593-79-3
		Selenium oxide	12640-89-0
		Other Selenium compounds	—
10	Brominated flame retardant (except PBBs, PBDEs)	3, 5, 3', 5' -Tetrabromo-bisphenol A (TBBA)	79-94-7
		2, 4-Dibromo-phenol	615-58-7
		2, 4, 6-Tribromo-phenol	118-79-6
		Pentabromo-phenol	608-71-9
		Dibromo-propanol	96-13-9
		Vinylbromide	593-60-2
		Pentabromo-toluene	87-83-2
		Tetrabromo phthalic-anhydride	632-79-1
		Hexabromocyclododecane (HBCDD)	25637-99-4
		Other brominated flame retardant	—
11	Polyvinyl chloride (PVC)*3	Polyvinyl chloride (CH ₂ -CHCL) _n	9002-86-2
12	Specified Phthalates	Diheptylnonylundecyl phthalate (DHNUP)	68515-42-4
		1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	71888-89-6
		Diisooheptyl phthalate (DIHP)	71888-89-6
		1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	117-82-8
		Phthalic acid bis(2-methoxyethyl)	117-82-8
		Diisononyl phthalate (DINP)	28553-12-0
		n-Dioctyl phthalate (DNOP)	117-84-0
Diisodecyl phthalate (DIDP)	26761-40-0		

*1 The metal contains the alloy, but Nickel is exempted.

*2 Nickel is applied to the use with the possibility of touching for long periods of time (Outside of portable electronic equipment designed as portable, etc.).

*3 It is applied only packing use.

No.	Environmental Controlled Substances	Name of Substance	CAS No.
13	Di-substituted organostannic compounds (DBT, DOT, etc.)	Dibutyltin compounds (DBT) Dioctyltin compounds (DOT) Other di-substituted organostannic compounds	- - -
14	Cobalt and its compounds#6	Cobalt(II) chloride Cobalt(II) sulfate Cobalt(II) nitrate Carbonic acid cobalt(II) Cobalt(II) acetate	7646-79-9 12179-04-3 12267-73-1 10124-43-3 10141-05-6
15	Specified azo compounds Specified cracked Amine (Azo dye, pigment)	See Attached list 8	See Attached list 8
16	Formaldehyde	Formaldehyde	50-00-0
17	Benzene	Benzene	71-43-2
18	Fluorine-based greenhouse gases	HFC PFC SF6	- - -
19	Polycyclic-aromatic hydrocarbons (PAHs) corresponding to REACH/restriction substance	See Attached list 6	See Attached list 6
20	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	See Attached list 10	See Attached list 10
21	Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)	Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)	68921-45-9
22	REACH/restriction substances (For applicable substances, or for details, see Attached list 6.)	See Attached list 6	See Attached list 6

No.	Environmental Controlled Substances	Name of Substance	CAS No.
23	REACH/authorization substances	See Attached list 7	See Attached list 7
24	RECAH/SVHC	See Attached list 7	See Attached list 7
25	JAMP declarable substances *4	Declarable substances regulated by the Joint Article Management Promotion consortium (JAMP).	-

*4 Declarable substances regulated by the Joint Article Management Promotion consortium (JAMP).

Substances to which the following laws and industry standards apply are included:

1. Japan Chemical Examination Law/Type 1 specified chemical substances
2. Japan Industrial Safety and Health Law (substances whose manufacture is prohibited)
3. Poisonous and Deleterious Substances Control Law (specific toxic substances)
4. RoHS directive
5. ELV directive
6. GLP (Annex VI Table3.1/CMR-Cat 1a and 1b as well as Table3.2/CMR-Cat 1 and 2)
7. REACH Annex XVII (restriction substances)
8. REACH authorization substance candidates (SVHC)
9. POPs regulation Annex I
10. ESIS PBT (parts that apply to the PBT evaluation criteria)
11. GADSL
12. JIG

For details, see the following document and list:

JAMP declarable substance handbook and JAMP declarable substance reference list(Latest version)

Reference : <http://www.jamp-info.com/list>

Attachment list

Attached list 1: List of details on utility/control values/reference laws relating to each level 1 (Prohibited) substance group

Attached list 2: List of details on utility/control values/reference laws relating to each level 2 (Managed) substance group

Attached list 3-1: RoHS directive/list of exemptions (Annex 3)

Attached list 3-2: RoHS directive/list of exemptions (Annex 4)

Attached list 4: Ozone-layer-depleting substances list

Attached list 5: PFOS and its analogous compounds list

Attached list 6: REACH/restriction substance list

Attached list 7: REACH/authorization substance/SVHC list

Attached list 8: Specific amine list

Attached list 9: Hexabromocyclododecane (HBCD or HBCDD) list

Attached list 10: Perfluorooctanoic acid (PFOA) and its salts and its esters list

(Home page for Attached

lists:http://www.hitachi.co.jp/environment/library/pdf/green_annex_en.pdf)

Alteration History of Attached Table

Date	Contents
July 1, 2008	<p>8 substances of customer requirement were added to Table 3.3.</p> <p>PFOS(Perfluorooctanesulfonic acid), TBBP-A(Tetra Bromo Bisphenol-A), PAHs(PolycyclicAromatic Hydrocarbons), Ethylene glycol Methyl ester, Ethyl ester and those derivative, Polybinyl chloride and its monomer, Beryllium and its compounds, Dioxin halide, and Furan were added.</p>
January 1, 2009	<p>(1) 15 substances of REACH Regulation Candidate List were added to Table 3.1 and 3.2.</p> <p>Sodium dichromate dihydrate, Lead hydrogen arsenate, Bis(tributyltin)oxide, Alkanes C10-13 chloro(Short chain chlorinated paraffins), Anthracene, 4,4' -Diaminodiphenylmethane, Cobalt dichloride, Diarsenic pentaoxide, Diarsenic dichromate, Musk xylene, Bis(2-ethyl hexyl phthalate, Hexabrocyclododecane, Benzyl butyl phthalate, Triethyl arsenate, Diobutyl phthalate</p> <p>(2) 19 substances of Customer requirement were added to Table 3.3.</p> <p>Asbestos, Brominated Flame Retardants, Certain Azo Colorants, Chlorinated Hydrocarbons, Formaldehyde, Formaldehyde-Emission, Hexavalent Chromium and its compounds, Nickel, Ozone Depleting Substances(ODS), Polycyclic Aromatic Hydrocarbons(PAH), Perfluorooctane Sulfonates(PFOS), Polychlorinated Biphenyls(PCBs), Polychlorinated Terphenyls(PCTs), Polychlorinated Naphthalenes, Polyvinyl Chloride(PVC), Radioactive Substances, Tributyl Tin(TBT), Triphenyl Tin(TPT), Tributyl Tin Oxide(TBTO)</p>
July 1, 2010	<p>(1) 14 substances and Acrylamide of REACH Regulation Candidate List were added to Table 3.1 and 3.2.</p> <p>Lead chromate, Lead chromate molybdate sulfate red(C.I. Pigment Red 104), Lead sulfochromate yellow(C.I. Pigment Yellow 34), Diisobutyl phthalate, Anthracene oil, Anthracene oil,anthracene paste,distn, lights, Anthracene oil,anthracene paste,anthracene fraction, Anthracene oil anthracene-low, Anthracene oil,anthracene paste, Coal tar pitch,high temperature, Alminosilicate,refractory ceramic fibres, Tris(2-chlororthyl)phosphate, Zirconia aluminosilicate,refractory ceramic fibres, 2,4-Dinitrotoluene, Acrylamide,</p> <p>(2) 8 substances of Customer requirement were added to Table 3.3.</p> <p>Beryllium oxide, Brominated flame retardants, Chlorinated flame retardants, Musk fragrance substance, Volatile organic compound(VOC), Bisphenol A, Triclosan, Surfactants</p> <p>(3) Table 2 was reviewed.</p> <p>(4) JEITA Class No. was deleted from Table 2,3-1,3-2 and 3-3.</p>
September 1, 2010	<p>(1) 8 substances of REACH Regulation Candidate List were added to Table 3.1 and 3.2.</p> <p>Trichloroethylene, Boric acid, Disodium tetraborate,anhydrous, Tetraboron disodium heptaoxide,hydrate, Sodium chromate, Potassium chromate, Ammonium dichromate, Potassium dichromate</p> <p>(2) Because 6 substances of the following were authorized to "List of Substances subject to Authorization" by the TBT Report, these substances were changed from Candidate List of SVHC in Table 3.2 (controlled substances) to Candidate List in Table 3.1(prohibited substances).</p> <p>4,4' -Diaminodiphenylmethane, Dibutyl phtalate, Musk xylene, Bis(2-ethyl hexyl) phtalate, Hexabromocyclododecane, Benzyl butyl phthalate</p>

Date	Contents
January 14, 2011	<p>(1) 8 substances of REACH Regulation Candidate List were added to Table 3.1 and 3.2. Cobalt(II) sulphate, Cobalt(II) dinitrate, Cobalt(II) carbonate, Cobalt(II) diacetate 2-Methoxyethanol, 2-Ethoxyethanol, Chromium trioxide Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid</p>
September 20, 2013	<p>(1) Revision of controlled substance groups in Table 2 ,Table 3.1 and Table 3.2. (2) Correction of related body text according to the above changes.</p>
October 1, 2015	<p>(1)The change of Table 2 : The addition of No.19–No.23 and No 38–No40 (2)The change of Table3.1 : The addition of No.20 (3)The change of Table3.2 : The addition of No.1–No4 and No 19–21</p>