

**Tabuchi Electric Group**  
**Green Procurement Standards**

Ver. 4.12  
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**TABUCHI ELECTRIC CO., LTD.**  
Quality Control Division



**Appendix 1 Banned Substance**  
**(Prohibited substances for products and packages)**

No.	Substance/Substance group	Portion/Material	Threshold Level	Application	Reference laws and regulation
1	Cadmium/Cadmium compounds	All, except batteries	0.01% by weight(100ppm) of homogeneous materials	pigments, corrosion-resisting surface treatment, batteries, contact paint, stabilizers for PVC	1,2
		Batteries	0.001% by weight (10ppm) of battery		
2	Hexavalent chromium compounds	All	0.1% by weight(1,000ppm) of homogeneous materials	pigments, paints, ink, catalysts, anticorrosive surface, plating surface	1,2
3	Lead/Lead compounds	All, except as noted	0.1% by weight(1,000ppm) of homogeneous materials	pigments, paints, stiffener in rubbers, stabilizer in plastic, batteries, curing agents for rubber, solders, glasses, free cutting alloy, additive in various type of resins	1,2,3,4
		Caicity cords with thermoset or thermoplastic coating	0.03% by weight(300ppm) of surface coating		
		Batteries	0.004% by weight(40ppm) of battery		
4	Mercury/Mercury compounds	All, except batteries	0.1% by weight(1,000ppm) of homogeneous materials	buttries, Fluorescent materials, contact points, thermometers, pigments	1,2,5
		Butteries	0.0001% by weight(1ppm) of battery		
5	Tributyl tin oxide (TBTO)	All	Intentional use	paints, pigments, antiseptic agents, refrigerants, digestives, forming agents	8
6	Tri-substituted organostannic compounds	All	Intentional use or more than 1,000ppm of tin is contained in homogeneous	paints, pigments, flame retardants, stabilizer	2,8
7	Dibutyltin compounds (DBT)	All	More than 1,000ppm of tin is contained in homogeneous materials	PVC stabilizers, curing catalysts for silicon resin and urethane resin	2
8	Diocetyl tin compounds (DOT)	1) Textile articles and leather products intended to come into contact with the skin 2) Childcare articles 3) Two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	More than 1,000ppm of tin is contained in homogeneous materials	PVC stabilizers, curing catalysts for silicon resin and urethane resin	2
9	Polybrominated biphenyls (PBBs)	All	0.1%by weight(1,000ppm) of homogeneous materials	flame retardants	1,2
10	Polybrominated diphenil ethers (PBDEs)	All	Intentional use or more than 1,000ppm of tin is contained in homogeneous	flame retardants	1,2,8
11	Polychlominated diphenyls (PCBs) and specific substitutes *Refer to Appended table list for Banned Substances	All	Intentional use	insulating oils, electrical insulation medium, plasticizers, paint solvent, heat transformer	2,8
12	Polychlorinated terphenyls (PCTs)	All	0.005%by weight(50ppm) of homogeneous materials	insulating oils, electrical insulation medium, plasticizers, paint solvent, heat transformer	2
13	Plychlorinated naphthalenes	All	Intentional use	greases, metal treatment liquids, flame retardants, plasticizer in PVC	8,10
14	Perchlorates	All	Inclusion of more than 0.006ppm in a part	coin-cell batteries	22
15	Perfluorooctane sulfonate (PFOS)	All	Intentional use or more than 1,000ppm of tin is contained in homogeneous	hydraulic fluid, metal plating, coating for paper	8,9,10,12
16	Selected Fluorinated green house gases (PFC,SF6,HFC) *Refer to Appended table list for Banned Substances	All	Intentional use	refrigerants, foaming agents, detergent, fumigation	14

No.	Substance/Substance group	Portion/Material	Threshold Level	Application	Reference laws and regulation
17	Asbestos	All	Intentional use	insulators, filters, heat insulator, frictional agents	2,6,7
18	Azocolourants and azodyes which from certain aromatic amines *Refer to Appended table list for Banned Substances	Fibers and Leathers	In fabric products/leather products and form more than 30ppm	pigments, dyes, coloring agents	2
19	Ozone deplating substances *Refer to Appended table list for Banned Substances	All	Intentional use	refrigerants, foaming agents, fumigation	15,16
20	Radioactive substances	All	Intentional use	smoke detectors, mesurment equipments, gauge, detectors	19,20
21	2-benzotriazol-2-yl-4, 6-di-tert-butylphenol	All	Intentional use	adhesive agents, paints, printing ink, plastics, putties, caulking, filling materials(ultraviolet light absorbers)	8
22	Specific phthalates DEHP (CAS No.117-81-7) DBP (CAS No.84-74-2) BBP (CAS No.85-68-7) DINP (CAS No.28553-12-0 68515-48-0) DIDP (CAS No.26761-40-0 68515-49-1) DNOP (CAS No.117-84-0)	The accessible parts of the toy applications	total sum of six phtalates less than 1,000ppm	plasticizers, dyes, pigments, painting ink, adhesive	2,4
23	Bis (2-ethylhexyl) phthalate (DEHP) CAS No.117-81-7 ※Start of prohibition after July 22 2018	ALL (Not the accessible parts of the toy applications)	0.1%by weight(1,000ppm) of homogeneous materials	plasticizers, dyes, pigments, painting ink, adhesive	1,2
24	Dibutyl phthalate (DBP) CAS No.84-74-2 ※Start of prohibition after July 22 2018	ALL (Not the accessible parts of the toy applications)	0.1%by weight(1,000ppm) of homogeneous materials	plasticizers, dyes, pigments, painting ink, adhesive	1,2
25	Benzyl butyl phthalate (BBP) CAS No.85-68-7 ※Start of prohibition after July 22 2018	ALL (Not the accessible parts of the toy applications)	0.1%by weight(1,000ppm) of homogeneous materials	plasticizers, dyes, pigments, painting ink, adhesive	1,2
26	Diisobutyl phthalate (DIBP) CAS No.84-69-5 ※Start of prohibition after July 22 2018	ALL (Not the accessible parts of the toy applications)	0.1%by weight(1,000ppm) of homogeneous materials	plasticizers, dyes, pigments, painting ink, adhesive	1,2
27	Dimethyl fumarate	All	0.1%by weight(1,000ppm) of homogeneous materials	moisture prevention agents, mildew-proofing agents	2
28	4 heavy metals (Cd,Pb,Cr <sup>6+</sup> ,Hg)	Packing matrials	total sum of four heavy metals less than 1,000ppm	pigments, paints, stbilizer for PVC	17,18
29	Shortchaine chlorinated paraffins (C10-C13)	All	Intentional use or more than 1,000ppm of tin is contained in homogeneous	greases, metal treatment liquid, flame retardants, plasticizer in PVC	10
30	Polycyclic aromatic hydrocarbons (PAHs) *Refer to Appended table list for Banned Substances	Direct contact with human skin or oral cavity for long period of time or repeatedly	Less than 1ppm	pigmens in lubber or plasticcomponents (as inpurity)	2
31	Hexabromocycloddecane (HBCDD) and all major diastereoisomers *Refer to Appended table list for Banned Substances	All	0.1%by weight(1,000ppm) of homogeneous materials	flame retardant	8,9
32	Perfluorooctanic acid (PFOA) and indivisual salts and esters of PFOA *Refer to Appended table list for Banned Substances	All	Intentional use	hydraulic fluid, metal plating, coating for paper	11,13
33	Aersenic compounds	wood preservative	When used in timber as antiseptic agent	wood preservative	2
34	Cobalt dichloride	Drier	0.1%by weight(1,000ppm) of homogeneous materials	moisture indicator in silica gel	2
35	Natural rubber	Parts that consumers directly touch the skin for toy applications	Intentional use	rubber bushing, rubber aheets, antivibration rubber	—

No.	Substance/Substance group	Portion/Material	Threshold Level	Application	Reference laws and regulation
36	Red phosphorus CAS No.7723-14-0 ※Start of prohibition after July 22 2018	Resin to which electric field is applied (Exclude phosphorus added	Intentional use	flame retardant	—

## Appendix 1 Attachment Prohibited Substances Details

No	Substance Group Name	Relevant Substances	CAS No.
11	Polychlorinated biphenyls (PCB) and specific substitutes	Polychlorinated biphenyls (all isomers and homologues)	1336-36-3
		Monomethyl-tetrachloro-diphenylmethane (Ugilec 141)	76253-60-6
		Monomethyl-dichloro-diphenylmethane (Ugilec 121, Ugilec 21)	81161-70-8
		Monomethyl-dibromo-diphenylmethane (DBBT)	99688-47-8
16	Fluorine-based greenhouse gases (PFC, SF 6, HFC)	Tetrafluoromethane (carbon tetrafluoride, PFC-14)	75-73-0
		Hexafluoroethane (PFC-116)	76-16-4
		Octafluoropropane (PFC-218)	76-19-7
		Decafluorobutane (PFC - 31 - 10)	355-25-9
		Dodecafluoropentane (PFC-41-12)	678-26-2
		Tetradecafluorohexane (PFC - 51 - 14)	355-42-0
		Octafluorocyclobutane (PFC-c 318)	115-25-3
		Sulfur hexafluoride (SF 6)	2551-62-4
		Trifluoromethane (HFC-23)	75-46-7
		Difluoromethane (HFC-32)	75-10-5
		Methyl fluoride (HFC-41)	593-53-3
		2H, 3H-decafluoropentane (HFC-43-10mee)	138495-42-8
		Pentafluoroethane (HFC-125)	354-33-6
		1,1,2,2-tetrafluoroethane (HFC-134)	359-35-3
		1,1,1,2-tetrafluoroethane (HFC-134a)	811-97-2
		1,2-Difluoroethane (HFC-152)	624-72-6
		1,1-Difluoroethane (HFC-152a)	75-37-6
		1,1,2-trifluoroethane (HFC-143)	430-66-0
		1,1,1-trifluoroethane (HFC-143a)	420-46-2
		Fluoroethane (HFC-161)	353-36-6
		2H-heptafluoropropane (HFC-227ea)	431-89-0
		1,1,1,2,2,3-hexafluoropropane (HFC-236cb)	677-56-5
		1,1,1,2,3,3-hexafluoropropane (HFC-236ea)	431-63-0
1,1,1,3,3,3-hexafluoropropane (HFC-236fa)	690-39-1		
1,1,2,2,3-pentafluoropropane (HFC-245ca)	679-86-7		
1,1,1,3,3-pentafluoropropane (HFC-245fa)	460-73-1		
1,1,1,3,3-pentafluorobutane (HFC-365 mfc)	406-58-6		
18	Azo dyes and pigments producing some aromatic amines	4-aminoazobenzene	1960/9/3
		O-Anisidine	90-04-0
		2-naphthylamine	91-59-8
		3,3'-dichlorobenzidine	91-94-1
		4-Aminobiphenyl	92-67-1
		Benzidine	92-87-5
		O-toluidine	95-53-4
		4-chloro-2-methylaniline	95-69-2
		2,4-toluenediamine	95-80-7
		O-aminoazotoluene ‡	97-56-3
		5-Nitro-o-toluidine	99-55-8
		3,3'-Dichloro-4,4'-diaminodiphenylmethane	101-14-4
		4,4'-methylenedianiline	101-77-9
		4,4'-diaminodiphenyl ether	101-80-4
		P-chloroaniline	106-47-8
		3,3'-Dimethoxybenzidine	119-90-4
		3,3'-dimethylbenzidine	119-93-7
		2-methoxy-5-methylaniline	120-71-8
		2,4,5-trimethylaniline	137-17-7
		4,4'-diaminodiphenyl sulfide	139-65-1
2,4-Diaminoanisole	615-05-4		
4,4'-diamino-3,3'-dimethyldiphenylmethane	838-88-0		
19	Ozone Layer Destructive Montreal Protocol Substances described in Attachments A, B, C, E	CFCl <sub>3</sub> (CFC-11)	—
		CF <sub>2</sub> Cl <sub>2</sub> (CFC-12)	—
		C <sub>2</sub> F <sub>3</sub> Cl <sub>3</sub> (CFC-113)	—
		C <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub> (CFC-114)	—
		C <sub>2</sub> F <sub>5</sub> Cl (CFC-115)	—

No	Substance Group Name	Relevant Substances	CAS No.
		CF <sub>2</sub> BrCl (halon-1211)	—
		CF <sub>3</sub> Br (halon-1301)	—
		C <sub>2</sub> F <sub>4</sub> Br <sub>2</sub> (halon-2402)	—
		CF <sub>3</sub> Cl (CFC-13)	—
		C <sub>2</sub> FCl <sub>5</sub> (CFC-111)	—
		C <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub> (CFC-112)	—
		C <sub>3</sub> FCl <sub>7</sub> (CFC-211)	—
		C <sub>3</sub> F <sub>2</sub> Cl <sub>6</sub> (CFC-212)	—
		C <sub>3</sub> F <sub>3</sub> Cl <sub>5</sub> (CFC-213)	—
		C <sub>3</sub> F <sub>4</sub> Cl <sub>4</sub> (CFC-214)	—
		C <sub>3</sub> F <sub>5</sub> Cl <sub>3</sub> (CFC-215)	—
		C <sub>3</sub> F <sub>6</sub> Cl <sub>2</sub> (CFC-216)	—
		C <sub>3</sub> F <sub>7</sub> Cl (CFC-217)	—
		CCl <sub>4</sub> Carbon tetrachloride	—
		C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub> 1,1,1-trichloroethane (methyl chloroform)	—
		<b>Relevant Substances</b>	<b>Number of isomers</b>
		CHFCl <sub>2</sub> (HCFC-21)	1
		CHF <sub>2</sub> Cl (HCFC-22)	1
		CH <sub>2</sub> FCl (HCFC-31)	1
		C <sub>2</sub> HFCI <sub>4</sub> (HCFC-121)	2
		C <sub>2</sub> HF <sub>2</sub> Cl <sub>3</sub> (HCFC-122)	3
		C <sub>2</sub> HF <sub>3</sub> Cl <sub>2</sub> (HCFC-123)	3
		CHCl <sub>2</sub> CF <sub>3</sub> (HCFC-123)	—
		C <sub>2</sub> HF <sub>4</sub> Cl (HCFC-124)	2
		CHFClCF <sub>3</sub> (HCFC-124)	—
		C <sub>2</sub> H <sub>2</sub> FCl <sub>3</sub> (HCFC-131)	3
		C <sub>2</sub> H <sub>2</sub> F <sub>2</sub> Cl <sub>2</sub> (HCFC-132)	4
		C <sub>2</sub> H <sub>2</sub> F <sub>3</sub> Cl (HCFC-133)	—
		C <sub>2</sub> H <sub>3</sub> FCl <sub>2</sub> (HCFC-141)	3
		CH <sub>3</sub> CFCl <sub>2</sub> (HCFC-141b)	—
		C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> Cl (HCFC-142)	3
		CH <sub>3</sub> CF <sub>2</sub> Cl (HCFC-142b)	—
		C <sub>2</sub> H <sub>4</sub> FCl (HCFC-151)	2
		C <sub>3</sub> HFCI <sub>6</sub> (HCFC-221)	5
		C <sub>3</sub> HF <sub>2</sub> Cl <sub>5</sub> (HCFC-222)	9
		C <sub>3</sub> HF <sub>3</sub> Cl <sub>4</sub> (HCFC-223)	12
		C <sub>3</sub> HF <sub>4</sub> Cl <sub>3</sub> (HCFC-224)	12
		C <sub>3</sub> HF <sub>5</sub> Cl <sub>2</sub> (HCFC-225)	9
		CF <sub>3</sub> CF <sub>2</sub> CHCl <sub>2</sub> (HCFC-225ca)	—
		CF <sub>2</sub> CICF <sub>2</sub> CHClF (HCFC-225cb)	—
		C <sub>3</sub> HF <sub>6</sub> Cl (HCFC-226)	5
		C <sub>3</sub> H <sub>2</sub> FCl <sub>5</sub> (HCFC-231)	9
		C <sub>3</sub> H <sub>2</sub> F <sub>2</sub> Cl <sub>4</sub> (HCFC-232)	16
		C <sub>3</sub> H <sub>2</sub> F <sub>3</sub> Cl <sub>3</sub> (HCFC-233)	18
		C <sub>3</sub> H <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub> (HCFC-234)	16
		C <sub>3</sub> H <sub>2</sub> F <sub>5</sub> Cl (HCFC-235)	9
		C <sub>3</sub> H <sub>3</sub> FCl <sub>4</sub> (HCFC-241)	12
		C <sub>3</sub> H <sub>3</sub> F <sub>2</sub> Cl <sub>3</sub> (HCFC-242)	18
		C <sub>3</sub> H <sub>3</sub> F <sub>3</sub> Cl <sub>2</sub> (HCFC-243)	18
		C <sub>3</sub> H <sub>3</sub> F <sub>4</sub> Cl (HCFC-244)	12
		C <sub>3</sub> H <sub>4</sub> FCl <sub>3</sub> (HCFC-251)	12

No	Substance Group Name	Relevant Substances	CAS No.
		C <sub>3</sub> H <sub>4</sub> F <sub>2</sub> Cl <sub>2</sub> (HCFC-252)	16
		C <sub>3</sub> H <sub>4</sub> F <sub>3</sub> Cl(HCFC-253)	12
		C <sub>3</sub> H <sub>5</sub> FCl <sub>2</sub> (HCFC-261)	9
		C <sub>3</sub> H <sub>5</sub> F <sub>2</sub> Cl(HCFC-262)	9
		C <sub>3</sub> H <sub>6</sub> FCl(HCFC-271)	5
		CHFBr <sub>2</sub>	1
		CHF <sub>2</sub> Br(HBFC-22B1)	1
		C <sub>2</sub> HF <sub>2</sub> Br <sub>3</sub>	3
		C <sub>2</sub> HF <sub>4</sub> Br	2
		C <sub>2</sub> H <sub>2</sub> F <sub>2</sub> Br <sub>2</sub>	4
		C <sub>2</sub> H <sub>3</sub> FBr <sub>2</sub>	3
		C <sub>2</sub> H <sub>4</sub> FBr	2
		C <sub>3</sub> HF <sub>2</sub> Br <sub>5</sub>	9
		C <sub>3</sub> HF <sub>4</sub> Br <sub>3</sub>	12
		C <sub>3</sub> HF <sub>6</sub> Br	5
		C <sub>3</sub> H <sub>2</sub> F <sub>2</sub> Br <sub>4</sub>	16
		C <sub>3</sub> H <sub>2</sub> F <sub>4</sub> Br <sub>2</sub>	16
		C <sub>3</sub> H <sub>3</sub> FBr <sub>4</sub>	12
		C <sub>3</sub> H <sub>3</sub> F <sub>3</sub> Br <sub>2</sub>	18
		C <sub>3</sub> H <sub>4</sub> FBr <sub>3</sub>	12
		C <sub>3</sub> H <sub>4</sub> F <sub>3</sub> Br	12
		C <sub>3</sub> H <sub>5</sub> F <sub>2</sub> Br	9
		CH <sub>2</sub> FBr	1
		C <sub>2</sub> HFBBr <sub>4</sub>	2
		C <sub>2</sub> HF <sub>3</sub> Br <sub>2</sub>	3
		C <sub>2</sub> H <sub>2</sub> FBr <sub>3</sub>	3
		C <sub>2</sub> H <sub>2</sub> F <sub>3</sub> Br	3
		C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> Br	3
		C <sub>3</sub> HFBBr <sub>6</sub>	5
		C <sub>3</sub> HF <sub>3</sub> Br <sub>4</sub>	12
		C <sub>3</sub> HF <sub>5</sub> Br <sub>2</sub>	9
		C <sub>3</sub> H <sub>2</sub> FBr <sub>5</sub>	9
		C <sub>3</sub> H <sub>2</sub> F <sub>3</sub> Br <sub>3</sub>	18
		C <sub>3</sub> H <sub>2</sub> F <sub>5</sub> Br	8
		C <sub>3</sub> H <sub>3</sub> F <sub>2</sub> Br <sub>3</sub>	18
		C <sub>3</sub> H <sub>3</sub> F <sub>4</sub> Br	12
		C <sub>3</sub> H <sub>4</sub> F <sub>2</sub> Br <sub>2</sub>	16
		C <sub>3</sub> H <sub>5</sub> FBr <sub>2</sub>	9
		C <sub>3</sub> H <sub>6</sub> FBr	5
		CH 2 BrCl Bromochloromethane	—
		CH 3 Br bromide	—
30	Polycyclic aromatic hydrocarbons (PAHs)	enzo (a) pyrene (BaP) 50 – 32 – 8	50-32-8
		Benzo (e) pyrene (BeP) 192 – 97 – 2	192-97-2
		Benzo (a) anthracene (BaA) 56-55-3	56-55-3
		Chrysen (CHR) 218-01-9	218-01-9
		Benzo (b) fluoranthene (BbFA) 205-99-2	205-99-2
		Benzo (j) fluoranthene (BjFA) 205-82-3	205-82-3
		Benzo (k) fluoranthene (BkFA) 207-08-9	207-08-9
		Dibenzo (a, h) anthracene (DBaA) 53-70-3	53-70-3
31	Hexabromocyclododecane (HBCDD)	Hexabromocyclododecane (HBCDD)	25637-99-4
			4736-49-6
			65701-47-5
			138257-17-7

No	Substance Group Name	Relevant Substances	CAS No.
			138257-18-8
			138257-19-9
			169102-57-2
			678970-15-5
			678970-16-6
			678970-17-7
		1, 2, 5, 6, 9, 10-hexabromocyclododecane	3194-55-6
		A-Hexabromocyclododecane	134237-50-6
		B-hexabromocyclododecane	134237-51-7
		Г-Hexabromocyclododecane	134237-52-8
32	Perfluorooctanoic acid (PFOA)	Perfluorooctanoic acid (PFOA)	335-67-1
		Ammonium perfluorooctanoate (APFO)	3825-26-1
		Sodium salt of perfluorooctanoic acid	335-95-5
		Potassium salt of perfluorooctanoic acid	2395-00-8
		Silver salt of perfluorooctanoic acid 335-93-3	335-93-3
		Perfluorooctanoic acid fluoride 335 - 66 - 0	335-66-0
		Methyl perfluorooctanoate 376-27-2	376-27-2
		Ethyl perfluorooctanoate 3108-24-5	3108-24-5



## Appendix2 Prohibited Substances in the Manufacturing Process

## 1. Prohibited Substances

## 1.1.

No.	CAS No.	Substance	English Name
1	—	CFC	CFC
2	—	ハロン	Halon
3	56-23-5	四塩化炭素	Carbon tetrachloride
4	71-55-6	1,1,1-トリクロロエタン	1,1,1-Trichloroethane
5	—	HCFC	HCFC
6	—	HBFC	HBFC
7	74-97-5	ブromクロロメタン	Bromochloromethane
8	74-83-9	臭化メチル	Methyl bromide

## 1.2. Substances Prohibited for Use to Prevent Soil Contamination

No.	CAS No.	Substance	English Name
(3)	56-23-5	四塩化炭素	Carbon tetrachloride
9	107-06-2	1,2-ジクロロエタン	1,2-Dichloroethane
10	75-35-4	1,1-ジクロロエチレン	1,1-Dichloroethylene
11	156-59-2	シス-1,2-ジクロロエチレン	Cis-1,2-Dichloroethylene
12	542-75-6	1,3-ジクロロプロペン	1,3-dichloropropene
13	75-09-2	ジクロロメタン	Dichloromethane
14	127-18-4	テトラクロロエチレン	Tetrachloroethylene
(4)	71-55-6	1,1,1-トリクロロエタン	1,1,1-Trichloroethane
15	79-00-5	1,1,2-トリクロロエタン	1,1,2-Trichloroethane
16	79-01-6	トリクロロエチレン	Trichloroethylene
17	71-43-2	ベンゼン	Benzene

## 1.3. Special Dust Air Pollution Control Law

No.	CAS No.	Substance	English Name
18		石綿(アスベスト)	Asbestos

## 1.4. Specific Chemical Substance Law Class 1 Regarding Chemical Substances Examination and Manufacturing etc. R

No.	CAS No.	Substance	English Name
19	-	ポリ塩化ビフェニル(PCB)	Polychlorinated biphenyls (PCB)
20	-	ポリ塩化ナフタレン(塩素数2以上のもの)	Polychlorinated naphthalene (2or more chlorine atoms)
21	118-74-1	ヘキサクロロベンゼン	Hexachlorobenzene
22	309-00-2	アルドリン	Aldrin
23	60-57-1	ディルドリン	Dieldrin
24	72-20-8	エンドリン	Endrin
25	50-29-3	DDT	DDT
26	57-74-9	クロルデン	Chlordane
27	76-44-8	ペプタクロル	Heptachlor
28	8001-35-2	トキサフェン	Toxaphene
29	2385-85-5	マイレックス	Mirex
30	87-68-3	ヘキサクロロブタジエン(別名:ヘキサクロロブタ-1,3-ジエン)	Hexachlorobutadiene
31	-	ペルフルオロ(オクタン-1-スルホン酸)(別名PFOS)又はその塩a)およびペルフルオロ(オクタン-1-スルホニル)=フルオリド(別名PFOSF)	Perfluorooctane sulfonic acid (PFOS), its salts Perfluorooctane sulfonyl fluoride(PFOSF)
32	608-93-5	ペンタクロロベンゼン	Pentachlorobenzene
33	319-84-6	$\alpha$ -ヘキサクロロシクロヘキサン	Alpha hexachlorocyclohexane
34	319-85-7	$\beta$ -ヘキサクロロシクロヘキサン	Beta hexachlorocyclohexane
35	58-89-9	リンデン(別名: $\gamma$ -ヘキサクロロシクロヘキサン)	Lindane
36	143-50-0	クロルデコン	Chlordecone
37	36355-01-8	ヘキサブロモビフェニル	Hexabromobiphenyl
38	-	テトラブロモジフェニルエーテル及びペンタブロモジフェニルエーテル	Tetrabromodiphenyl ether and pentabromodiphenyl ether
39	-	ヘキサブロモジフェニルエーテル及びヘプタブロモジフェニルエーテル	Hexabromodiphenyl ether and heptabromodiphenyl ether
40	115-29-7 959-98-8 33213-65-9	エンドスルファン	Technical endosulfan and its related isomers

41	25637-99-4 3194-55-6 4736-49-6 65701-47-5 134237-50-6 134237-51-7 134237-52-8 138257-17-7 138257-18-8 138257-19-9 169102-57-2 678970-15-5 678970-16-6 678970-17-7	ヘキサブロモシクロドデカン	Hexabromocyclododecane
42	-	ペンタクロロフェノールとその塩及びエステル類	Pentachlorophenol and its salts and esters

### 1.5. Manufacturing Prohibited Substances of Occupational Safety and Health Act Ordinance

No.	CAS No.	Substance	English Name
41	—	黄りんマッチ(黄りん)	Tetra phosphorus
42	—	ベンジジン及びその塩	Benzidine and its salts
43	—	4-アミノビフェニル及びその塩	4-Aminobiphenyl and its salts
(18)	—	石綿(アスベスト)	Asbestos
44	—	4-ニトロビフェニル及びその塩	4-Nitrobiphenyl and its salts
45	—	ビス(クロロメチル)エーテル	Bis(chloromethyl) ether
46	—	$\beta$ -ナフチルアミン及びその塩	$\beta$ -Naphthylamine
47	—	ベンゼン含有ゴムのり(ベンゼン容量:>5%)	Rubber cement containing benzene (benzene:>5v/v%)

### 2.削減対象物質

No.	CAS No.	Substance	English Name
—	—	—	—

## Appendix3 Contained Controlled Substances

(Substances requiring knowledge of presence / absence, content, use location, use etc.)

No.	Substance Group	Relevant Component	Threshold	Application – Usage Example	Reference Laws/ Regulations
1	Beryllium oxide	All	0.1 weight% of molded product (1,000ppm)	Ceramic material	21
2	Brominated flame retardant (Other than PBB and PBDE or HBCDD)	Plastic materials. However, excluding laminated printed circuit boards	0.1 weight% of total content of bromine in plastic material (1000ppm)	Flame retardants	23,24
		Multilayer printed circuit boards	0.09% weight of total bromine content of laminate (900 ppm)		
3	Chlorine-based flame retardant	Plastic materials. However, excluding laminated printed circuit boards	0.1% weight of total chlorine content of plastic materials (1000 ppm)	Flame retardants	23,24
		Multilayer printed circuit boards	0.09% weight of total chlorine content of laminate (900 ppm)		
4	Polyvinyl chloride (PVC) and PVC copolymer	Plastic materials. However, excluding laminated printed circuit boards	When total chlorine content of plastic material is 1000 ppm	Resin materials, insulation, chemical resistance, OHP	23
5	Formaldehyde	Textiles	0.0075 weight% of textile product (75 ppm)	Agents for prevention of insects, corrosion of wood etc., adhesives	25,26
		Composite wood products or components	Added intentionally		
6	Candidate substances subject to REACH regulation SVHC	Refer to REACH approved relevant candidate substances	0.1 weight% of molded product (1,000ppm)	—	2
7	Nickel	In case of components in contact with skin for prolong periods	Added intentionally	Stainless steel, plating	2

**Appendix4 Reference Laws, Regulations and Notation Number in Attachment**

Notation in table (Reference laws and regulation column)	Name of laws (some abbreviations), Country / Region
1	RoHS Directive (revised) 2011/65 / EU (Europe)
2	REACH Regulation (EC) No 1907/2006 (Europe)
3	Proposition 65 (USA-California)
4	2008 Consumer Product Safety Improvement Act (PUBLIC LAW 110-314) (USA)
5	Mercury Hazard Reduction Law (US)
6	Toxic Substances Control Act (TSCA) (USA)
7	Handling Risk Reduction of Specific Hazardous Substances, Preparations and Articles Cabinet Order (ChemRRV) (Switzerland)
8	Law relating to review of chemical substances and manufacture etc. (Japan)
9	Stockholm Convention on Residual Organic Pollutants (International Convention)
10	Regulation on persistent organic pollutants (POPs) (EC) No 850/2004 (Europe)
11	Norwegian Regulations on Restrictions on Manufacture, Import, Export, Sales and Use of Chemicals and Other Products Harmful to Health and the Environment (Norway)
12	Canada Environmental Protection Act SOR / 2008-178 (Canada)
13	US PFOA Voluntary Abolishment Program (USA)
14	(EU) No 517/2014 (Europe)
15	Montreal Protocol (International Convention)
16	Law regarding the protection of the ozone layer by regulations of specified substances (Japan)
17	EU EU Packaging Directive 94/62 / EEC (Europe)
18	Toxics in Packaging Prevention Act (USA-California)
19	Prevention of Radiation Damage by Radioactive Isotope etc., Act (Japan)
20	Regulation of nuclear source material, nuclear fuel material and nuclear reactor Law (Japan)
21	EU WEEE Directive 2002/96 / EC Article 11: DIGITALEUROPE/CECED/AeA/EERA Guidance regarding information provision implementation to processing facilities (Europe)
22	Perchlorate Contamination Prevention Law 2003 (USA - California)
23	JS 709 (Industry standard) (USA)
24	IPC-04101, IEC 61249-2-21 (I
25	CARB Regulation (USA - California)
26	BGB I 1990/194: Regulation for formaldehyde § 2, 12/2/1990 (Austria)

### Submission of Inclusion Confirmation Form

Fill in columns related to the following items.

Be careful when you prepare a document. If there is an incomplete form/mistake in the content, it is necessary to resubmit a document.

#### 《Basic Information》

Preparation date, supplier's name, manufacturer's name, department name, name of person in charge, **stamp by a responsible person**, preparer and contact information

\* For overseas business partners, signature by a responsible person is acceptable instead of stamp.

#### 《Investigation of Contained Chemical Substances》

① Part name: Part name and your formal Part number

\* When documents can be combined for certain series, etc., prepare one document with name of the series and attach a list of Part numbers.

\* It is not necessary to write any Part codes.

② Column of Weight of Parts / Unit: Select one and write a check in

Weight per parts (Unit : g , kg) / In the case of delivery in units of m, the weight per 1 m (g/m) / In the case of delivery in units of m<sup>3</sup>, the weight per 1 m<sup>3</sup>(g/m<sup>3</sup>)

③ Contained or not: "Contained" → Fill in the column of impurities or intentional with a circle mark, "Not contained" → Fill in the column with an X mark.

④portion weight: Fill in the column weight of homogeneous materials in unit of g.

⑤Contained amount and content rate: Contained amount (unit: g) and content rate of chemical substances contained in homogeneous materials

\*Content rate of portion (in homogeneous materials). Content rate (ppm) = (Contained amount/Weight of portion) X10<sup>6</sup>

\* Fill in the columns with easily understandable numbers. (Ex.) 0.00000003=3E-08

⑥In which portion and for what purpose: portion in which each homogeneous material is contained and for what purposes each contained substance is used

⑦Remarks: Regarding response to RoHS

\* For purposes of RoHS exempted, clearly write "**RoHS exempted**" and exempted Item number.

\* For impurities, clearly write "**below the threshold level**".

\* Regarding threshold levels, refer to Appendix 1 "Banned Substance".

#### 【How to Submit A Document】

By following the format of "Confirmation Document about Inclusion of Environmental Impacts Substance", fill in and submit a document.

Send an original document or copy to a person who requests the form or attach electronic data by e-mail

To TABUCHI ELECTRIC CO., LTD.

No. \_\_\_\_\_

Inclusion Confirmation Form

Preparation Date	YYYY/MM/DD	Part Name	
Supplier's Name		Part Number	
Manufacturer's Name		Part Code	
Department Name	Company seal or signature	TEL	
Person in Charge		FAX	
Preparer		E-mail	

Weight of Part g kg g/m g/m<sup>2</sup> \*8 ← Don't forget to fill in this column.

No.	Substance group	Contained or not *9			Weight of portion g	Contained amount g	Content rate ppm	In which portion and for what purpose	Remarks (RoHS exempted etc.)
		Contained		Not contained					
		Impurities	Intentional						
<b>Banned Substances</b>									
1	Cadmium/Cadmium compounds								
2	Hexavalent chromium compounds								
3	Lead/Lead compounds								
4	Mercury/Mercury compounds								
5	Tributyl tin oxide (TBTO)								
6	Tri-substituted organostannic compounds								
7	Dibutyltin compounds (DBT)								
8	Dioctyltin compounds (DOT) *2								
9	Polychlorinated diphenyls (PCBs) and specific substitutes								
10	Polybrominated diphenyl ethers (PBDEs)								
11	Polychlorinated diphenyls (PCBs) and specific substitutes								
12	Polychlorinated terphenyls (PCTs)								
13	Polychlorinated naphthalenes								
14	Perchlorates								
15	Perfluorooctane sulfonate (PFOS)								
16	Selected Fluorinated green house gases (PFC,SF6,HFC)								
17	Asbestos								
18	Azocolourants and azodyes which from certain aromatic amines								
19	Ozone depleting substances *1								
20	Radioactive substances								
21	2-benzotriazol-2-yl-4, 6-di-tert-butylphenol								
22	Specific phthalates(BBP,DBP,DEHP,DIDP,DINP,DNOP) *3								
23	Bis (2-ethylhexyl) phthalate (DEHP) *4								
24	Dibutyl phthalate (DBP) *4								
25	Butyl Benzyl phthalate (BBP) *4								
26	Diisobutyl phthalate (DIBP) *4								
27	Dimethyl fumarate								
28	4 heavy metals (Cd,Pb,Cr6+,Hg)								
39	Shortchaine chlorinated paraffins (C10-C13)								
30	Polycyclic aromatic hydrocarbons (PAHs)								
31	Hexabromocyclododecane (HBCDD) and all major diastereoisomers								
32	Perfluorooctanic acid (PFOA) and individual salts and esters of PFOA								
33	Arsenic compounds *5								
34	Cobalt dichloride								
35	Natural rubber *6								
36	Red phosphorus *7								
<b>Contained Controlled Substances</b>									
37	Beryllium oxide								
38	Brominated flame retardant (Otherthan PBB and PBDE or HBCDD)								
39	Chlorine-based flame retardant								
40	Polyvinyl chloride (PVC) and PVC copolymer								
41	Formaldehyde								
42	Candidate substances subject to REACH regulation SVHC								
43	Nickel *8								

\*1 Substances defined in the Montreal Protocol  
 \*2 Textile articles and leather products intended to come into contact with the skin ,Childcare articles,Two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)  
 \*3 The accessible parts of the toy applications  
 \*4 ALL (Not the accessible parts of the toy applications), Start of prohibition afger July 22 2018  
 \*5 When used in timber as antiseptic agent  
 \*6 Parts that consumers directly touch the skin for toy applications  
 \*7 Resin to which electric field is applied (Exclude phosphorus added in the metal), Start of prohibition afger July 22 2018  
 \*8 Parts that consumers directly touch the skin  
 \*9 Column of Weight of Parts / Unit: Select one and write a check in   
 Weight per parts (Unit : g , kg) / In the case of delivery in units of m, the weight per 1 m (g/m) / In the case of delivery in units of m<sup>2</sup>, the weight per 1 m<sup>2</sup>(g/m<sup>2</sup>)  
 \*10 Regarding how to fill in the column of contained or not, refer to [Submission of Inclusion Confirmation Form]

## **Submission of Certificate of Non-use**

Fill in columns related to the following items.

Be careful when you prepare a document. If there is an incomplete form/mistake in the content, it is necessary to resubmit a document.

When you modify the content, don't use any correction fluid. Cross out a mistake with a double line and set your seal on it.

### 《Basic Information》

Preparation date, company name, **company seal or stamp by a responsible person**, job title/responsible person's name, contact person's name and telephone number

\* For overseas business partners, signature by a responsible person is acceptable instead of stamp.

### 《Target part》

part name and our registered part number (or series name)

\* Fill in the columns with a part name and part number registered by TABUCHI ELECTRIC CO., LTD.

\* When parts have not been registered yet, fill in the columns with your part name and part number.

\* When documents can be combined for certain series, etc., prepare one document with name of the series and attach a list of part numbers.

\* It is not necessary to write any part codes.

### 《Impurities, Inclusion of RoHS exempted, etc.》

**If banned substance are contained, they must be clearly written.**

Banned substance, content rate, portion/purpose and comment

\* Regardless of threshold levels, fill in the columns for each homogeneous material.

\* In the column of comment, clearly write that your products are applicable with RoHS, such as "items of RoHS exempted" and "impurities".

### 【How to Submit A Document】

By following the format of "Certificate of Disuse of Environmental Impacts Substances", fill in and submit a document.

**Submit an original document with company seal or stamp by a responsible person.**

When electronic data are submitted, send an original document to a person who requests the form.

YYYY/MM/DD

To TABUCHI ELECTRIC CO., LTD

Company seal  
or  
Signature of  
responsible  
person

Certificate of Non-use

Company name :  
Job title :  
Responsible person :  
Contact person :

TEL :

We guarantee that prohibited substances listed below are not intentionally used to the parts delivered to the all Tabuchi Electric Group, exclude for exception use, and that those are not used in manufacturing processes.

Impurities, inclusion of RoHS exception use, etc. are guaranteed to be as described.

《Part》

Reference No.			
Part name	Part Code	Part Number	Remarks

《Banned Substance》

No	Substances group	No	Substances group
1	Cadmium/Cadmium compounds	19	Ozone deplating substances *1
2	Hexavalent chromium compounds	20	Radioactive substances
3	Lead/Lead compounds	21	2-benzotriazol-2-yl-4,6-di-tert-butylphenol
4	Mercury/Mercury compounds	22	Specific phthalates *3
5	Tributyl tin oxide (TBTO)		(BBP, DBP, DEHP, DIDP, DINP, DNOP)
6	Tri-substituted organostannic compounds	23	Bis (2-ethylhexyl) phthalate (DEHP) *4
7	Dibutyltin compounds (DBT)	24	Dibutyl phthalate (DBP) *4
8	Diocetyl tin compounds (DOT) *2	25	Butyl Benzyl phthalate (BBP) *4
9	Polybrominated biphenyls (PBBs)	26	Diisobutyl phthalate (DIBP) *4
10	Polybrominated diphenyl ethers (PBDEs)	27	Dimethyl fumarate
11	Polychlorinated diphenyls(PCBs)and specific substitutes	28	4 heavy metals (Cd, Pb, Cr6+, Hg)
		29	Shortchaine chlorinated paraffins (C10-C13)
12	Polychlorinated terphenyls (PCTs)	30	Polycyclic aromatic hydrocarbons (PAHs)
13	Plychlorinated naphthalenes	31	Hexabromocyclododecane (HBCDD) and all major diastereoisomers
14	Perchlorates	32	Perfluorooctanic acid (PFOA) and indivisual salts and esters of PFOA
15	Perfluorooctane sulfonate (PFOS)	33	Aersenic compounds *5
16	Selected Fluorinated green house gases (PFC, SF6, HFC)	34	Cobalt dichloride
17	Asbestos	35	Natural rubber *6
18	Azocolourants and azodyes which from certain aromatic amines	36	Red phosphorus *7

- \*1 Substances defined in Montreal Protocol.
- \*2 Textile articles and leather products intended to come into contact with the skin ,Childcare articles,Two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)
- \*3 The accessible parts of the toy applications
- \*4 ALL (Not the accessible parts of the toy applications). Start of proibition afger July 22 2018
- \*5 When used in timber as antiseptic agent
- \*6 Parts that consumers directly touch the skin for toy applications
- \*7 Resin to which electric field is applied (Exclude phosphorus added in the metal), Start of proibition afger July 22 2018

《Impurities, Inclusion of RoHS exempted, etc.》

Banned Substance	Content Rate (ppm)	Portion/Purpose	Comment





Contents

<1> Basic Stance Regarding the Environment

<2> Description of Specific Initiatives

1. Applicable Range
2. Definition of Terms
3. Tabuchi Electric Group Management Standards for Environmentally Hazardous Substances
4. Evaluation of Business Partners
5. Request for Submission of Survey Data
6. Reference Website
7. Inquires

Appendix 1. "Banned Substance (substances prohibited from inclusion in products and packaging materials)"

Appendix 2. "Prohibited Substances in the Manufacturing Process"

Appendix 3. "Contained Controlled Substances (substances requiring knowledge of presence or absence, amount contained, location of use, usage, etc.)"

Appendix 4. "Reference Laws, Regulations and Notation Number in Appendix"

Appendix 5. "Submission of Inclusion Confirmation Form"

Appendix 6. "Inclusion Confirmation Form"

Appendix 7. "Submission of Certificate of Non-use"

Appendix 8. "Certificate of Non-use"

Appendix 9. "High Precision Analysis Data List"

## <1> Basic Stance Regarding the Environment

Environmental conservation has become an issue on a global scale in recent years and prevention of global warming, recycling of resources, consideration for conservation of the ecosystem have become important issues that cannot be ignored.

The Tabuchi Electric Group in anticipation of the future has established an environmental philosophy and basic environmental policies regarding the environment and based on these have aggressively developed business management with the goal of global environmental conservation and formation of a recycling oriented society.

Along with enhancing environmental conservation activities with the cooperation of our business partners, it is necessary to procure parts that have little impact on the environment, reduce the burden on the environment and avoid environmental risks.

Under the REACH regulations that came into effect in June 2007, candidate substances and restricted substances subject to approval have been added yearly, especially in Europe and in July 2011, the RoHS Directive took effect and laws and regulations regarding environmentally hazardous substances have increasingly become strengthened.

Based on the above background, we decided to revise the "Green Procurement Standards". We will continue to work with our business partners to create environmentally friendly products and promote business activities that place importance on the environment and therefore we would like you to understand the importance of efforts in environmental conservation and ask for your cooperation.

### 1. Environmental Philosophy

We will strive to become a company that coexists with the irreplaceable environment of the earth.

### 2. Basic Environmental Policy

Based on the fact that Tabuchi Electric Co., Ltd. is a business entity that develops, designs and sells transformers, power supply equipment, etc., we will promote environmental conservation activities based on the following policies.

- 1) We will understand the environmental impact related to business activities and implement settings and periodic revisions of environmental goals within the scope economically and technically possible.
  - ① Promote product designs with consideration for the environment.
  - ② Manage and reduce environmentally dangerous substances.
- 2) We will observe laws, regulations, agreements and other requirements agreed upon regarding environmental conservation.
- 3) We will implement environmental impact assessment, internal environmental audits, etc., and through continuously improving our environmental management system, we

will prevent pollution of the environmental.

4) Through environmental education and company publicity activities, we will strive to raise awareness of environmental policies for everyone engaged in the company and raise awareness regarding the environment.

5) We will announce this environmental policy to the externally.

## <2> Description of Specific Initiatives

### 1. Applicable Range

Applies to products, components, auxiliary materials and packaging materials procured by the Tabuchi Electric Group.

### 2. Definition of Terms

#### 1) Environmentally Hazardous Substances

Refers to substances the Tabuchi Electric Group has determined to have a significant impact on the global environment and the human body.

#### 2) Homogeneous Materials

Refers to materials that cannot be mechanically broken down into different materials.

Homogeneous: Entire composition is uniform

Example: Plastics, glass, metals, alloys, paper, boards, resins, coating

Mechanically Broken Down: Refers to basically materials that can be separated and broken down by mechanical action such, removal of screws, smashing, grinding and polishing.

#### 3) Containment

Refers to components constructing the product or substances added, filled, mixed or adhered to materials used for the components regardless of intentional or not.

#### 4) Impurities

Refers to substances contained in natural materials that cannot be technically removed in the purification process as industrial materials also substances that occur in the synthesis reaction process that cannot be technically removed.

#### 5) Chemical substances

Refers to elemental units and chemical compounds that exist in nature or elements or their chemical compounds obtained in an arbitrary manufacturing process.

Additives necessary to maintain stability or impurities occurring from the processed used are included. However, solvents that can be separated without affecting the change in composition or stability of single chemical substances are excluded.

Example: lead oxide, nickel chloride, benzene, etc.

#### 6) Mixture

Refers to a mixture of 2 or more chemical substances.

Example: Paint, ink, ingot alloy, solder, adhesive, resin pellet, etc.

7) Article

Refers to the specific shape, appearance or design assigned during manufacturing that will greatly determine the function in end use rather than the function fulfilled by the chemical composition.

Example: Metal plate materials, gears, integrated circuits, electrical products, transport equipment, etc.

8) SVHC : Substances of Very High Concern

Refers to carcinogenic substances, mutagenic substances, reprotoxic substances and non-biodegradable chemical substances that accumulate in the environment and living organisms that are published on a list of substances subject approval by the European Administrative Agency.

SVHC will be appended and revised each time

9) Auxiliary Materials

Refers to components not listed in the component list of the manufacturing specifications and refers to flux, diluents (thinner, alcohol), cleaning agents, masking materials / tape, packing tape, marker pens, ink, cushioning materials, desiccant, etc.

10) Domestic VT62474

Domestic VT 62474 is the abbreviation for IEC TC 111 VT62474 Japan National Committee and is one of the subcommittees established by the National Committee of IEC/TC111 (Secretariat: JEITA Environment Division) and is a domestic organization that can reflect the Japan's opinion regarding IEC62474 on attending international conferences and international voting.

10) chemSHERPA

Information dissemination scheme for communicating information on chemical substances contained in products that can be used throughout the supply chain developed under the leadership of the Ministry of Economy, Trade and Industry.

3. Tabuchi Electric Group Management Standards for Environmentally Hazardous Substances

The management standards of the Tabuchi Electric Group's environmentally hazardous substances are as described below.

However, please understand that there may be additional requirements in accordance with future changes in international laws and various countries' regulations.

1) Substances subject to environmental impact

(a) Prohibited substances

Addition of prohibited substances to products and packaging materials and inclusion or use of impurities beyond the threshold value is strictly prohibited.

The inspection for environmentally harmful substances should not only consist of inspection of content of materials but also continually check for contamination or use

and transfer to products.

Substances prohibited from use are indicated below.

Appendix 1. "Banned Substance"

Appendix 2. "Prohibited Substances in the Manufacturing Process"

\*About applicable portion of Red phosphorus

(1) Applicable portion is a resin part where an electric field is applied regardless of DC, AC and its voltage.

However, because water resistant coating etc. are done Excluding cases where the generation of phosphoric acid is suppressed.

In this case, please submit phosphate bleedout test data.

For confirmation and consultation of test conditions etc., please contact our company inquiries

(2) About collapse prevention film

Please use polyethylene (PE) for collapse prevention film that directly contacts products and parts.

Phthalate ester may be used as a plasticizer in polyvinyl chloride film and there is a possibility that the phthalate ester may be migrated to products and parts

And please use packing trays that make direct contact with products / parts also made of polyethylene

(b) Contained Controlled Substances

Substances requiring knowledge of presence or absence, amount contained, location of use, usage, etc., are indicated below.

i )Appendix 3. "Contained Controlled Substances"

ii ) Substances designated by REACH \*SVHC.

\* It is necessary to report containment details when the content of substances falling under SVHC exceeds 1,000 ppm.

2) Contained environmental hazardous substances threshold value

(a) Prohibited substances must not intentionally be added.

However, application exemption use such as RoHS directives is excluded.

(b)The threshold value of impurities for applicable environmentally hazardous substances of the Tabuchi Electric Group is indicated in the applicable range of the Appendix below. However, inclusion or use of substances of Appendix 2 "Prohibited Substances in the Manufacturing Process" is strictly prohibited.

**Appendix 1.** "Banned Substance"

**Appendix 3.** "Contained Controlled Substances"

(c) REACH SVHC shall contain less than 1,000 ppm for each substance.

#### 4. Evaluation of Business Partners

The Tabuchi Electric Group will evaluate the environmental management system of new

business partners and when the Tabuchi Electric Group considers an evaluation is necessary.

1) Construction of environmentally hazardous substance management system

Please construct and maintain and same management system as "Guidelines for Management of Chemical Substances in Products" issued by the Article Management Promotion Council (hereinafter referred to as JAMP).

Additionally, please ask your subcontractors to also construct and maintain the management system in the same manner.

These guidelines can be obtained from Section 6 of the JAMP website.

2) Evaluation procedure

(a) Self Evaluation

For new business partners and when the Tabuchi Electric Group determines it necessary, we will ask you to submit the self-assessment results based on JAMP's

"Guidelines for the Management of Chemical Substances in Products attachment Implementation Items List and Check Sheet".

Additionally, please answer both STEP 1 and STEP 2 questions.

The Implementation Items List and Check Sheet can be obtained from Section 6 of the JAMP website.

(b) Evaluation and Judgment

Based on the self-assessment results submitted, evaluation and judgement to see if the requirements of "Appendix Implementation Item List and Check Sheet for Product Chemical Substance Management Guidelines" have been satisfied. If the Tabuchi Electric Group Grove determines it necessary, an audit of the business partner will be conducted.

The results of the evaluation and judgment will be notified to business partners.

5. Request for Submission of Survey Data

Please submit the survey data at new employment and at 4M change (Materials, Manufacturing Method, Equipment and Personnel).

Additionally, we will also request it when the Tabuchi Electric Group determines it necessary.

1) Regarding submission of "Inclusion Confirmation Form"

(a) Survey content

Confirmation of presence or absence, amount contained, ratio of content, location of inclusion, and usage, etc.

Please refer to **Appendix 5**. "Submission of Inclusion Confirmation Form" for details.

(b) Answering method

Please fill in and submit **Appendix 6**. "Inclusion Confirmation Form" for your answers.

2) Regarding submission of " Certificate of Non-use "

(a) Certificate content

It is to assure use and inclusion will not be done, please refer to **Appendix 7**

"Submission of Certificate of Non-use" for details.

(b) Answering method

Please fill in **Appendix 8**. "Certificate of Non-use" and submit at the same time the "Inclusion Confirmation Form" for your answers.

3) Regarding submission of "High Precision Analysis Data"

This will be requested if the Tabuchi Electric Group determines it necessary, The substances subject to analysis are RoHS 10 substances (Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis (2-ethylhexyl) phthalate(DEHP), Dibutyl phthalate(DBP), Benzyl butyl phthalate(BBP), Diisobutyl phthalate(DIBP)

(a) Analysis data

Please submit analytical data by a high precision analyzer or equivalent analyzer. Fluorescent X-ray analysis data analyzed that has been correlated with analysis results of a high precision analyzer is also acceptable.

When there is more than one analysis data with one parts, please compile the analysis data for each part to in **Appendix 9**. "High Precision Analysis Data List".

For high precision analysis, please use the following analyzer.

Applicable Chemical Substance	Analyzer
Cadmium (Cd) Lead (Pb) Mercury (Hg)	ICP Emission Spectroscopic Analyzer (ICP-AEP) ICP Mass Spectrometer (ICP-MS) Atomic Absorption Spectroscopy (AAS) Fluorescent X-ray Analyzer (XRF)
Hexavalent chromium (Cr 6 +)	UV-Visible Spectrophotometer (UV-VIS) Ion Chromatograph Analyzer (IC)
Polybrominated biphenyl (PBB) Polybrominated diphenyl ethers (PBDE) Phthalic ester (DEHP,DBP,BBP,DIBP)	Gas Chromatograph Mass Spectrometer (GC-MS)

(b) Elution volume analysis data

Analytical data on the elution volume of substances specified in ISO8124-3 and EN1811 will be requested as necessary.

4) Submission of chemSHERPA (CI/AI)

Please submit chemSHERPA Data.

Please submit chemSHERPA CI data for Chemical substances and Mixtures and chemSHERPA AI data for Article.

chemSHERPA Tools and related documents can be downloaded from the URL of chemSHERPA in Section 6

6. Reference Website.

1) Joint Article Management Promotion-consortium (JAMP)

Website: <http://www.jamp-info.com/>

2) Domestic VT62474



Website: <http://www.vt62474.jp/>

3) chemSHERPA

Website : <https://cgensgeroa.net/>

4) Tabuchi Electric Co., Ltd.

Website: <http://www.zbr.co.jp/environment/environment.html>

7.Inquiries

For inquiries regarding contents of these standards, please inquire below.

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## Revision History

Version No.	Ver.	Enacted/Revision Date	Revision Description
First Edition	Ver1.0	March, 25 2005	New Issue
Second Edition	Ver2.0	Oct. 16, 2006	Applicable environmentally hazardous substance list made to conform to former JGPSSI. Revision of management standards.
	Ver2.1	Jan. 10, 2007	Toy application phthalate ester management added.
	Ver2.2	Oct. 1, 2007	Addition regarding submission of "Inclusion Confirmation Form", "Non-use Assurance Form", "Precise Analysis Data".
	Ver2.3	March 14,2008	Addition of DecaBDE, PFOS to prohibited substances Threshold value, management value changed.
	Ver2.4	Aug. 6, 2008	Management value change
Third Edition	Ver3.0	April 1, 2010	Changed applicable environmentally hazardous substance list to conform to JIG MSDS plus, AIS added. Addition of detailed explanation of submission data.
Fourth Edition	Ver4.0	April. 1, 2017	Revision of applicable environmentally hazardous substance list Revision of management standards
	Ver4.1	Jan. 10, 2018	Detailed applicable portion and condition of environmental hazardous substance. Change request data to chemSHERPA
	Ver4.11	Aug. 01, 2018	Appendix 1 Attachment Prohibited Substance Details, No Correction.
	Ver4.12	Jan. 21, 2019	Appendix 8 Certificate of Non-use Error correction No.25 DIBP → BBP