

Green Procurement Guidelines

(Management Standards for Environment-related Controlled Substances)

Standard number : HS-Q3-07

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Kaga Micro Solution Co.,Ltd.

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Record of revisions to regulations and standards						
Ed.	Date	Revision details			Appr.	Staff
1	2018.1.1	Company name change accompanying business transfer (KAGA MICRO SOLUTION CO., LTD. EDMS COMPANY)			Sakurai	Ikkai
2	2018.6.1	We respond to the latest chemical substance regulations in each country / region <ul style="list-style-type: none"> ▪ Review of controlled substances ▪ Review management level ▪ Conducted review of inclusion survey method and others. 			Sakurai	Ikkai
3	2019.9.1	We respond to the latest chemical substance regulations in each country / region <ul style="list-style-type: none"> ▪ Change of controlled substances ▪ Change of cadmium exemption details ▪ Change in exemption of lead Partial description change / addition of submission information in environmental substance survey			Sakurai	Ikkai
4	2020.10.1	2,Added exemption to scope We respond to the latest chemical substance regulations in each country / region <ul style="list-style-type: none"> ▪ Change of controlled substances ▪ Addition of RoHS directive exemption information list ▪ Review of a material and each country, local laws and regulations 			Sakurai	Ogura

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Green procurement supplier survey form (HS-Q3-07 Form 1)

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1. Purpose

Kaga Micro Solution Co.,Ltd. (hereinafter: "the company") shall contribute to environmental conservation through the development, design, manufacture and sales of environmentally-friendly products, based upon its environmental policy. To achieve this goal, the company shall implement a Green Procurement program and actively procure environmentally-friendly materials, parts and products from environmentally-aware companies.

2. Scope

- The company purchased parts/products/materials/auxiliary materials/packaging materials (Example: electronic parts/mechanism parts/labels/solder/adhesives/plastic bags/packaging/printing, etc.)
 - The company outsourced third-party production of semi-finished products/finished products (However, if there is no customer request for chemical substance management, it will be excluded.)
 - The company outsourced third-party design and production of finished products (However, if there is no customer request for chemical substance management, it will be excluded.)
- *packaging and packing used when delivering finished goods is not included.

3. Terms and definitions

(1) Environment-related substances

"Environment-related substances" are classified as any of the following:

- Substances contained within a product that can directly or indirectly cause harm to the body.
- Substances contained within a product that cause pollution when dispersed in the environment.
- Substances contained within a product that should be managed, recovered and reused in order to conserve natural resources

(2) Management standards for controlled substances

Controlled substances shall be managed according to the following three standards:

1. Level 1

The substances and their applications classified into this Level are those that are banned for the use in parts and materials.

2. Level 2

On the date set in each table, the substances and their applications in the respective tables shall be reclassified into Level 1.

3. Level 3

Considering possibility of phase-out in the future (i.e. reclassification into Level 2), technical investigations on substances and their applications are conducted.

4. Exemption

Applications excluded from the scope of Levels 1 through 3 taking the exempted items into account. Confirmation of use status of the substance and its application is required as necessary.

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(3) Component

Residue of a substance in parts or devices of a product or in materials of such parts and devices through addition, filling, mixture, or adhesion, whether such addition, filling, mixture, or adhesion is intentional or not. Where a substance is contained in the product unintentionally through mixture or adhesion during processing, it is also considered as content.

(4) Intentional addition

Residuals of a substance in parts or devices of a product or in materials of such parts and devices by intentional addition, filling, mixture, or adhesion, in order to provide certain properties, appearance, characteristics, attributes or quality of the product.

(5) Impurities

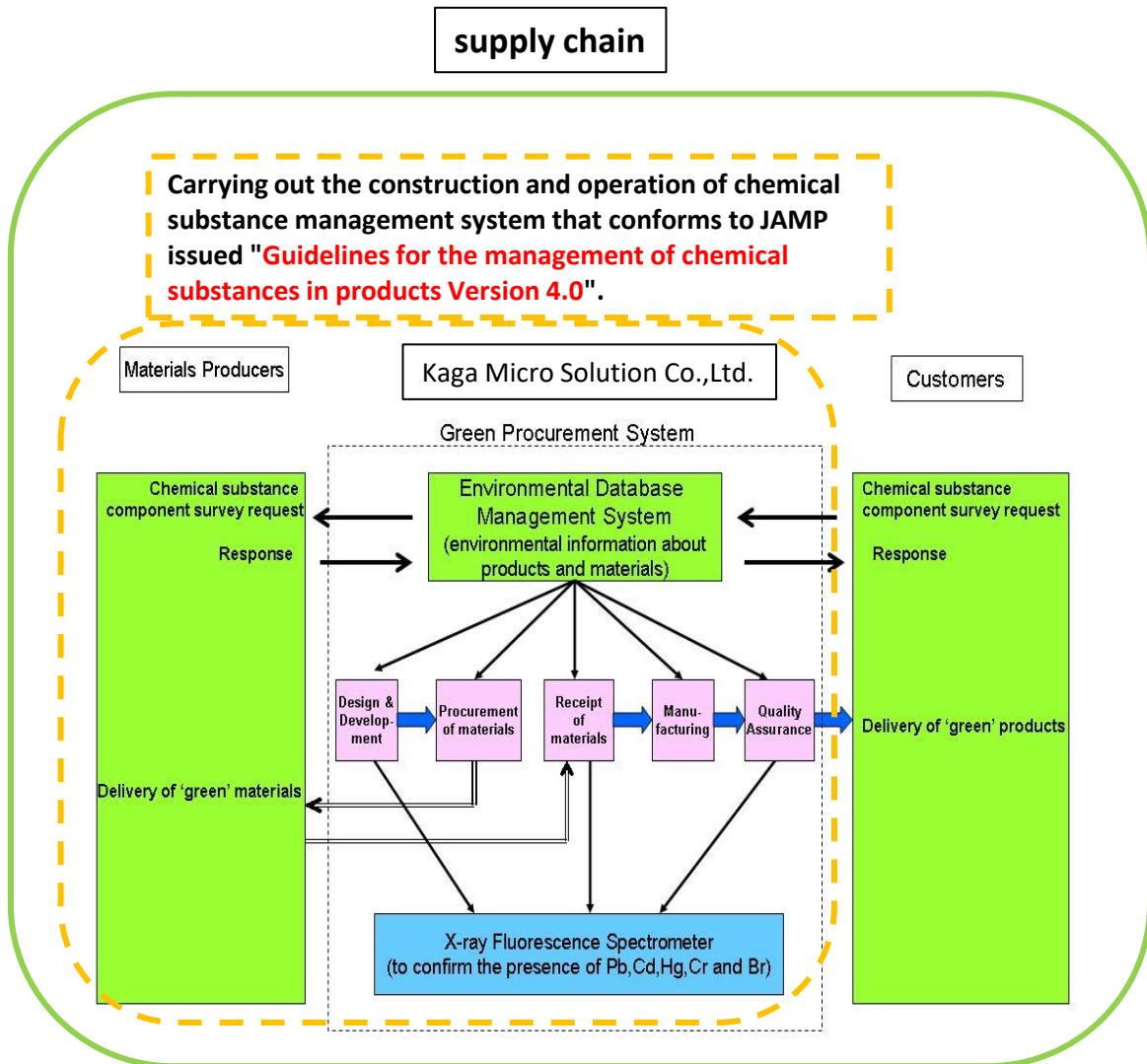
Substances that are contained within natural raw materials (natural impurities) which, due to technical reasons, cannot be removed through refining into industrial materials, and substances created during synthetic reactions that cannot be removed. To distinguish them from raw materials, substances which are used to change the properties of a material, which are considered "impurities" are designated as

(6) Ban on delivery

Period during which delivery of parts and components to Kaga Micro Solution Co.,Ltd. is banned.

4. Green Procurement System at Kaga Micro Solution Co.,Ltd.

We hope the parts maker for the construction of the chemical substance regime that followed JAMP publication "Guidelines for the management of chemical substances in products Version 4.0" to realize stable green procurement in the whole supply chain.



5 Controlled substances and management standards

5.1 Controlled substances

Table 5.1 List of controlled substances

Substance Name
Bis (2-ethylhexyl)phthalate (DEHP)
Dibutyl phthalate (DBP)
Benzyl butyl phthalate (BBP)
Diisobutyl phthalate (DIBP)
Cadmium and cadmium compounds
Lead and lead compounds
Mercury and mercury compounds
Chromium (VI) compounds
Polybrominated biphenyls (PBBs)
Polybrominated diphenylethers (PBDEs)
Hexabromocyclododecane (HBCDD)
Polychlorinated biphenyls (PCBs) and specific substitutes
Polychlorinated naphthalenes (PCNs)
Polychlorinated terphenyls (PCTs)
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)
Tris(2-chloroethyl)phosphate (TCEP)
Tris(1-chloro-2-propyl)phosphate (TCPP)
Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)
Polyvinyl chloride (PVC)and PVC blends
Fluorinated greenhouse gases (PFC, SF6, HFC)
Ozone depleting substances (ODS)
Perfluorooctane sulfonates (PFOS)
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA
Perfluorohexanesulfonic acid (PFHxS) and its salts and PFHxS related substances
Tri-substituted organostannic compounds
Dibutyltin (DBT) compounds
Dioctyltin (DOT) compounds
Tributyl tin oxide(TBTO)
Beryllium oxide
Cobalt dichloride
Diarsenic trioxide
Diarsenic pentoxide
Nickel
Diisononyl phthalate (DINP)
Di-isodecyl phthalate (DIDP)
Di-n-octyl phthalate (DNOP)

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Table 5.1 List of controlled substances Continued

Substance Name
Asbestos
Formaldehyde
Azocolourants and azodyes which form certain aromatic amines
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)
Dimethyl fumarate (DMF)
Polycyclic aromatic hydrocarbons (PAH)
Brominated flame retardants (BFR)
Chlorinated flame retardants (CFR)
Perchlorates
Radioactive substances
Substances in candidate list for authorization of EU REACH regulation(SVHC)

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5.2 Main "Targets" and "Effective date of the ban on the delivery" regarding 'Controlled Substances'

Table 5.2 Main "Targets" and "Effective date of the ban on the delivery" regarding 'Controlled Substances'

Material group/Material name		CAS No
Bis (2-ethylhexyl)phthalate (DEHP)		117-81-7
Dibutyl phthalate (DBP)		84-74-2
Benzyl butyl phthalate (BBP)		85-68-7
Diisobutyl phthalate (DIBP)		84-69-5
Mgmt level	Targets	Threshold level
Level 1	- Parts and materials for EEE - Parts and materials for carrying bags, carrying cases, carrying pouches	0.1 wt% (1000 ppm) in homogenous material
	- Parts and materials for children's toy or child care article	0.1 wt% (1000 ppm) as the sum of the phthalate (DEHP, DBP, BBP, DIBP) concentrations in plasticized material

Material group/Material name		CAS No
Cadmium and cadmium compounds		-
Mgmt level	Targets	Threshold level
Level 1	- All (See "5.3 Additional rules for packaging components and materials." See "5.4 Additional rules for batteries.")	0.01 wt% (100 ppm) of total Cd in homogenous material
Exemption	Refer to Table 5.3	

Material group/Material name		CAS No
Lead and lead compounds		-
Mgmt level	Targets	Threshold level
Level 1	- All (See "5.3 Additional rules for packaging components and materials." See "5.4 Additional rules for batteries.")	0.01 wt% (100 ppm) of total Cd in homogenous material
Exemption	Refer to Table 5.3	

Material group/Material name		CAS No
Mercury and mercury compounds		-
Mgmt level	Targets	Threshold level
Level 1	- All (See "5.3 Additional rules for packaging components and materials." See "5.4 Additional rules for batteries.")	0.01 wt% (100 ppm) of total Cd in homogenous material
Exemption	Refer to Table 5.3	

Material group/Material name		CAS No
Chromium (VI) compounds		-
Mgmt level	Targets	Threshold level
Level 1	- Natural leather parts and materials	0.0003 wt% (3 ppm) of total Cr+6 in dry weight of the leather.
	- All application other than the above (See "5.3 Additional rules for packaging components and materials.")	0.1 wt% (1000 ppm) of total Cr+6 in homogenous material

Material group/Material name		CAS No
Polybrominated biphenyls (PBBs)		-
Mgmt level	Targets	Threshold level
Level 1	- All	0.1 wt% (1000 ppm) in homogenous material

Material group/Material name		CAS No
Polybrominated diphenylethers (PBDEs)		-
Mgmt level	Targets	Threshold level
Level 1	- All	0.1 wt% (1000 ppm) in homogenous material

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Material group/Material name		CAS No
Hexabromocyclododecane (HBCDD)		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added or 0.01 mass% (100 ppm) of article

Material group/Material name		CAS No
Polychlorinated biphenyls (PCBs) and specific substitutes		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added

Material group/Material name		CAS No
Polychlorinated naphthalenes (PCNs)		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added

Material group/Material name		CAS No
Polychlorinated terphenyls (PCTs)		-
Mgmt level	Targets	Threshold level
Level 1	- All	0.005 wt% (50 ppm) in material

Material group/Material name		CAS No
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added or 0.1 wt% (1000ppm) of

Material group/Material name		CAS No
Tris(2-chloroethyl)phosphate (TCEP)		115-96-8
Mgmt level	Targets	Threshold level
Level 1	- All	0.1 wt% (1000 ppm) of article

Material group/Material name		CAS No
Tris(1-chloro-2-propyl)phosphate (TCPP)		13674-84-5
Mgmt level	Targets	Threshold level
Level 1	- All	0.1 wt% (1000 ppm) of article

Material group/Material name		CAS No
Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)		13674-87-8
Mgmt level	Targets	Threshold level
Level 1	- All	0.1 wt% (1000 ppm) of article

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Material group/Material name		CAS No
Polyvinyl chloride (PVC) and PVC blends		9002-86-2
Mgmt level	Targets	Threshold level
Level 1	<ul style="list-style-type: none"> - Substrates for FeliCa contactless IC cards - Carrying bags, carrying cases, and carrying pouches for digital cameras, video camcorders, and portable audio products (excluding those for professional use) - Cable ties used for accessories and connecting cords - Packaging components and materials to protect, contain, or transport products or supplied accessories (e.g. bags, adhesive tapes, cartons, and blister packs) (Note that packaging components or materials for devices, semiconductors, and any other components (e.g. trays, magazine sticks, stoppers, reels, embossed carrier tapes) are excluded.) - Heat shrink tubes (excluding those for batteries) - Flexible flat cables (FFC) - Insulating plates, decorative panels, labels (excluding those for batteries) - Sheets, and laminates (including sheets and laminates used for exterior of wooden speakers) - Suction cups for mounting in-vehicle products 	Intentionally use
Level 3	- All except the above	Intentionally use

Material group/Material name		CAS No
Fluorinated greenhouse gases (PFC, SF6, HFC)		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally use

Material group/Material name		CAS No
Ozone depleting substances (ODS) Substances of Annexes A, B, C and E of Montreal Protocol (See the website below)		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added
http://www.env.go.jp/earth/ozone/montreal_protocol.html (Websites of Ministry of the Environment Government of Japan)		

Material group/Material name		CAS No
Perfluorooctane sulfonates (PFOS)		-
Mgmt level	Targets	Threshold level
Level 1	- All	<ul style="list-style-type: none"> • Intentionally added or 0.1 wt% (1000ppm) of material in the part (as the sum of PFOS) • Intentionally added or 1 μg/m² of coated material

Material group/Material name		CAS No
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA		-
Mgmt level	Targets	Threshold level
Level 1	- All	<ul style="list-style-type: none"> • In parts materials, PFOA and individual salts are 25ppb, and PFOA related substances are 0.0001% by weight (1000 ppb) in total. • 1 μg/m² (as the sum of PFOA) of material

Material group/Material name		CAS No
Perfluorohexane-1-sulfonic acid (PFHxS) and its salts and related substances		-
Mgmt level	Targets	Threshold level
Level 3	- All	Intentionally added

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Material group/Material name		CAS No
including tributyltin (TBT) compounds and triphenyltin (TPT) compounds		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added or 0.1 wt% (1000ppm) of tin in the part

Material group/Material name		CAS No
Dibutyltin (DBT) compounds		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added or 0.1 wt% (1000ppm) of tin in the part

Material group/Material name		CAS No
Dioctyltin (DOT) compounds		-
Mgmt level	Targets	Threshold level
Level 1	- Textile and leather articles intended to come into contact with the skin - Childcare articles - Two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	Intentionally added or 0.1 wt% (1000ppm) of tin in the part

Material group/Material name		CAS No
Tributyl tin oxide(TBTO)		56-35-9
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added

Material group/Material name		CAS No
Beryllium oxide		-
Mgmt level	Targets	Threshold level
Level 1	- All	0.1 wt% (1000 ppm) of article

Material group/Material name		CAS No
Cobalt dichloride		7646-79-9
Mgmt level	Targets	Threshold level
Level 1	- Moisture indicator used for a desiccant agent (e.g. silicagel)	Intentionally added
	- Humidity indicator card which is impregnated with cobalt dichloride	0.1 wt% (1000 ppm) of article
Level 3	- All application other than the above	0.1 wt% (1000 ppm) of article

Material group/Material name		CAS No
Diarsenic trioxide		1327-53-3
Mgmt level	Targets	Threshold level
Level 1	- Glass for LCD panels (including cover glasses,touchscreens, and backlights)	0.1 wt% (1000 ppm) of article
Level 3	- All application other than the above	0.1 wt% (1000 ppm) of article

Material group/Material name		CAS No
Diarsenic pentoxide		1303-28-2
Mgmt level	Targets	Threshold level
Level 1	- Glass for LCD panels (including cover glasses,touchscreens, and backlights)	0.1 wt% (1000 ppm) of article
Level 3	- All application other than the above	0.1 wt% (1000 ppm) of article

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Material group/Material name		CAS No
Nickel		-
Mgmt level	Targets	Threshold level
Level 3	- All, where prolonged skin contact is expected	Intentionally added

Material group/Material name		CAS No
Diisononyl phthalate (DINP)		28553-12-0 68515-48-0
Mgmt level	Targets	Threshold level
Level 1	- Parts and materials for children's toy or child care article that can be placed in a child's mouth	0.1 wt% (1000 ppm) concentrations in plasticized material
Level 3	- All application other than the above	Intentionally added

Material group/Material name		CAS No
Di-isodecyl phthalate (DIDP)		26761-40-0 68515-49-1
Mgmt level	Targets	Threshold level
Level 1	- Parts and materials for children's toy or child care article that can be placed in a child's mouth	0.1 wt% (1000 ppm) concentrations in plasticized material
Level 3	- All application other than the above	Intentionally added

Material group/Material name		CAS No
Di-n-octyl phthalate (DNOP)		117-84-0
Mgmt level	Targets	Threshold level
Level 1	- Parts and materials for children's toy or child care article that can be placed in a child's mouth	0.1 wt% (1000 ppm) concentrations in plasticized material

Material group/Material name		CAS No
Asbestos		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added

Material group/Material name		CAS No
Formaldehyde		50-00-0
Mgmt level	Targets	Threshold level
Level 1	- The wooden products made from fiberboard, particleboard, or plywood, which are employed in products (e.g. speakers and racks)	Intentionally added
	- Textiles	0.0075 wt% (75 ppm) of textile material

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Material group/Material name		CAS No
Azo dyes and pigments that generate some aromatic amines Aromatic amines are for the substances shown in Table 5.2b.		See below
Mgmt level	Targets	Threshold level
Level 1	- Textiles and Leather	0.003 wt% (30 ppm) of the finished textile/leather product

Table 5.2b List of certain aromatic amines

CAS No.	Substance name
92-67-1	4-aminodiphenyl
92-87-5	benzidine
95-69-2	4-chloro-o-toluidine; 4-chloro-2-methylaniline
91-59-8	2-naphthylamine
97-56-3	o-aminoazotoluene
99-55-8	2-amino-4-nitrotoluene; 5-nitro-o-toluidine
106-47-8	p-chloroaniline
615-05-4	2,4-diaminoanisole
101-77-9	4,4'-diaminodiphenylmethane; 4,4'-methylenedianiline
91-94-1	3,3'-dichlorobenzidine
119-90-4	3,3'-dimethoxybenzidine
119-93-7	3,3'-dimethylbenzidine
838-88-0	3,3'-dimethyl-4,4'-diaminodiphenylmethane; 4,4'-diamino-3,3'-diphenylmethane
120-71-8	p-cresidine; 6-methoxy-m-toluidine
101-14-4	4,4'-methylene-bis-(2-chloroaniline)
101-80-4	4,4'-oxideaniline
139-65-1	4,4'-thiodianiline; 4,4'-diaminodiphenylsulfide
95-53-4	o-toluidine
95-80-7	2,4-toluylenediamine; 4-methyl-m-phenylenediamine
137-17-7	2,4,5-trimethylaniline
90-04-0	o-anisidine
60-09-3	4-aminoazobenzene

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Material group/Material name		CAS No
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)		3846-71-7
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added or 0.1 wt% (1000ppm) of

Material group/Material name		CAS No
Dimethyl fumarate (DMF)		624-49-7
Mgmt level	Targets	Threshold level
Level 1	- All	0.00001 wt% (0.1 ppm) of the part

Material group/Material name		CAS No
Polycyclic aromatic hydrocarbons (PAH)		-
Benzo (a) pyrene (BaP)		50-32-8
Benzo (e) pyrene (BeP)		192-97-2
Benzo (a) Anthracene (BaA)		56-55-3
Chrysene (CHR)		218-01-9
Benz (b) Fluorantene (BbFA)		205-99-2
Benzo (i) Fluoranthene (BjFA)		205-82-3
Benzo (k) Fluoranthene (BkFA)		207-08-9
Dibenzo (a, h) anthracene (DBAhA)		53-70-3
Mgmt level	Targets	Threshold level
Level 1	- Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	0.00005 wt% (0.5 ppm) of the plastic or rubber part
	- 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 wt% (1 ppm) of the plastic or rubber part

Material group/Material name		CAS No
Brominated flame retardants (BFR)(other than PBBs, PBDEs, or HBCDD)		-
Mgmt level	Targets	Threshold level
Level 3	- Printed Wiring Board (PWB) Laminates	0.09 wt% (900 ppm) total bromine content in laminate
	- Plastic materials except printed wiring board laminates	0.1 wt% (1000 ppm) of bromine in plastic materials

Material group/Material name		CAS No
Chlorinated flame retardants (CFR)(other than TCPEP, TCPP, or TDCPP)		-
Mgmt level	Targets	Threshold level
Level 3	- Printed Wiring Board (PWB) Laminates	0.09 wt% (900 ppm) total chlorine content in laminate
	- Plastic materials except printed wiring board laminates	0.1 wt% (1000 ppm) chlorine in plastic materials

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Material group/Material name		CAS No
Perchlorates		-
Mgmt level	Targets	Threshold level
Level 3	- All	6E-7wt% (6 ppb) of battery or product part

Material group/Material name		CAS No
Radioactive substance		-
Mgmt level	Targets	Threshold level
Level 1	- All	Intentionally added

Material group/Material name		CAS No
Substances in candidate list for authorization of EU REACH regulation(SVHC)		-
Mgmt level	Targets	Threshold level
Level 3	- All	0.1 wt% (1000 ppm) of article

Table 5.3 RoHS Directive Exempted Applications □

* Exclusion deadline: Categories 1–7, 10

No	Material	Exemption	Exclusion deadline
1(a)	Hg	Mercury in single capped (compact) fluorescent lamps for general lighting purposes < 30 W: not exceeding (per burner) 2.5 mg	Under deliberation
1(b)	Hg	Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 30 W and < 50W: not exceeding (per burner) 3.5 mg	Under deliberation
1(c)	Hg	Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 50 W and < 150W: not exceeding (per burner) 5 mg	Under deliberation
1(d)	Hg	Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 150 W: not exceeding (per burner) 15 mg	Under deliberation
1(e)	Hg	Mercury in single capped (compact) fluorescent lamps for general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm: not exceeding (per burner) 7 mg	Under deliberation
1(f)	Hg	Mercury in single capped (compact) fluorescent lamps for special purposes: not exceeding (per burner) 5 mg	Under deliberation
1(g)	Hg	Mercury in single capped (compact) fluorescent lamps for general lighting purposes < 30 W with a lifetime equal or above 20 000 h: not exceeding (per burner) 3.5 mg	Under deliberation
2(a)(1)	Hg	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2) for general lighting purposes not exceeding (per lamp): 4 mg	Under deliberation
2(a)(2)	Hg	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5) for general lighting purposes not exceeding (per lamp): 3 mg	Under deliberation
2(a)(3)	Hg	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8) for general lighting purposes not exceeding (per lamp): 3.5mg	Under deliberation
2(a)(4)	Hg	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12) for general lighting purposes not exceeding (per lamp): 3.5 mg	Under deliberation
2(a)(5)	Hg	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with long lifetime (≥ 25000h) for general lighting purposes not exceeding (per lamp): 5 mg	Under deliberation
2(b)(3)	Hg	Mercury in other fluorescent lamps Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) not exceeding (per lamp): 15 mg	Under deliberation
2(b)(4)	Hg	Mercury in other fluorescent lamps for other general lighting and special purposes (e.g. induction lamps) not exceeding (per lamp): 15 mg	Under deliberation
3(a)	Hg	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Short length (≤ 500 mm) not exceeding (per lamp): 3.5 mg	Under deliberation
3(b)	Hg	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Medium length (> 500 mm and ≤ 1 500 mm) not exceeding (per lamp): 5 mg	Under deliberation
3(c)	Hg	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Long length (> 1 500 mm) not exceeding (per lamp): 13 mg	Under deliberation

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No	Material	Exemption	Exclusion deadline		
4(a)	Hg	Mercury in other low pressure discharge lamps not exceeding (per lamp):15 mg	Under deliberation		
4(b)-I	Hg	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (perburner) in lamps with improved colour rendering index $R_a > 60$, $P \leq 155$ W: 30 mg	Under deliberation		
4(b)-II	Hg	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes with improved colour rendering index $R_a > 60$, 155 W $< P \leq 405$ W: 40 mg	Under deliberation		
4(b)-III	Hg	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes with improved colour rendering index $R_a > 60$, $P > 405$ W: 40 mg	Under deliberation		
4(c)-I	Hg	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes $P \leq 155$ W not exceeding (per burner):25 mg	Under deliberation		
4(c)-II	Hg	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes 155 W $< P \leq 405$ W not exceeding (per burner):30 mg	Under deliberation		
4(c)-III	Hg	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes $P > 405$ W not exceeding (per burner):40 mg	Under deliberation		
4(e)	Hg	Mercury in metal halide lamps (MH)	Under deliberation		
4(f)	Hg	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	Under deliberation		
5(b)	Pb	Lead in glass of fluorescent tubes not exceeding 0.2% by weight	Under deliberation		
6(a)-I	Pb	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in batch hot dip galvanised steel components containing up to 0,2 % lead by weight	Under deliberation		
6(b)-I	Pb	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	Under deliberation		
6(b)-II	Pb	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	Under deliberation		
6(c)	Pb	Copper alloy containing up to 4% lead by weight	Under deliberation		
7(a)	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)(except applications covered by point 24 of this Annex)	Under deliberation		
7(c)-I	Pb	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound (except applications covered under point 34)	Under deliberation		
7(c)-II	Pb	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher (Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex)	Under deliberation		
7(c)-IV	Pb	Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors	2021/7/21		
8(b)-I	Cd	Cadmium and its compounds in electrical contacts used in: <ul style="list-style-type: none"> – circuit breakers, – thermal sensing controls, – thermal motor protectors (excluding hermetic thermal motor protectors), – AC switches rated at: <ul style="list-style-type: none"> – 6 A and more at 250 V AC and more, or – 12 A and more at 125 V AC and more, – DC switches rated at 20 A and more at 18 V DC and more, and – switches for use at voltage supply frequency ≥ 200 Hz 	Under deliberation		

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No	Material	Exemption	Exclusion deadline
13(a)	Pb	Lead in white glasses used for optical applications	Under deliberation
13(b)-(I)	Pb	Lead in ion coloured optical filter glass types	Under deliberation
13(b)-(II)	Cd	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of the AnnexIII	Under deliberation
13(b)-(III)	Cd,Pb	Cadmium and lead in glazes used for reflectance standards	Under deliberation
15(a)	Pb	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Under deliberation
15(b)	Pb	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: — a semiconductor technology node of 90 nm or larger; — a single die of 300 mm ² or larger in any semiconductor technology node; — stacked die packages with die of 300 mm ² or larger, or silicon interposers of 300 mm ² or larger.	Under deliberation
18(b)	Pb	Lead as activator in the fluorescent powder (1% lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi ₂ O ₅ :Pb)	Under deliberation
18(b)-I	Pb	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi ₂ O ₅ :Pb) when used in medical phototherapy equipment	Under deliberation
21(a)	Cd	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE (except applications covered by entry 21(b) or entry 39)	2021/7/21
21(b)	Cd	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses (except applications covered by entry 21(a) or 39)	2021/7/21
21(c)	Pb	Lead in printing inks for the application of enamels on other than borosilicate glasses	2021/7/21
24	Pb	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	2021/7/21
29	Pb	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC	Under deliberation
32	Pb	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	Under deliberation
34	Pb	Lead in cermet-based trimmer potentiometer elements	Under deliberation
37	Pb	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	2021/7/21
39(a)	Cd	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µ g Cd per mm ² of display screen area)	Under deliberation
41	Pb	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council	Under deliberation

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5.3 Rules related with packaging components and materials

Definition of packaging components and materials

Packaging components and materials are defined as products made from any materials and components of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods from the producer to the user or consumer.

(Note) Excluding the packaging under control of the carrier or the supplier which is not discharged by Kaga Micro Solution Co.,Ltd. or the end user but to be collected and recycled, such as returnable containers.

Table 5.4 Additional rules for packaging components and materials

Heavy metals (cadmium, lead, mercury, and hexavalent chromium)		
Mgmt level	Targets	Threshold level
Level 1	- All packaging components and materials	100 ppm (or 0.01 wt%) or more of the total-concentration of four heavy metals (cadmium, lead, mercury, and hexavalent chromium) in each part, ink, or paint that constitutes a package
Exemption	- Cartons for returnable boxes owned by carriers or parts suppliers	

Table 5.5 Specific examples of packaging components and material and their identification

Packaging materials used for Kaga Micro Solution Co.,Ltd. products and for packaging of supplier parts		
PACKAGING		
1.	Cartons (boxes)	Item packaging, sub-master cartons, and master cartons made from any material
2.	Cushioning	
3.	Protective bags (sheets)	Materials made from foamed plastic or non-woven fabric
4.	Plastic bags	
5.	Envelopes	Envelopes containing warranty certificates, etc.
6.	Blister packs	
7.	Film	Including protective films used for LCD displays
8.	Partitions/spacers	
10.	Adhesive tape	Tape used to seal cartons and plastic bags or for fixing or protection of movable components
11.	Labels	Product information labels and barcode labels, etc. that are affixed to packaging materials
12.	Binding band	PP bands, etc.
13.	Outer boxes	
14.	Magazine sticks	Used for transportation of products
15.	Trays	
16.	Reels	

5.4 Rules for batteries

The following substances are subject to regulation for batteries.

Table 5.6 Detail for cadmium, lead and mercury for batteries

Cadmium and cadmium compound		
Mgmt level	Targets	Threshold level
Level 1	- Carbon zinc batteries (except button cells) - Alkaline manganese batteries (except button cells) - Nickel hydrogen rechargeable batteries (except button cells)	0.001% (10 ppm) by weight of battery
	- All other batteries	0.002% (20 ppm) by weight of battery

Lead and lead compounds		
Mgmt level	Targets	Threshold level
Level 1	- Alkaline manganese batteries (except button cells)	0.004 wt% (40 ppm) of battery
	- Carbon zinc batteries - Alkaline manganese button cells	0.1 wt% (1000 ppm) of battery
	- All other batteries	0.2 wt% (2000 ppm) of battery

Mercury and mercury compounds		
Mgmt level	Targets	Threshold level
Level 1	- All batteries	Intentionally added or 0.0001 wt% (1 ppm) of battery, 0.0005 wt% (5 ppm) of total Hg in homogenous material

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5.5 Substances, laws and regulations in various countries

Note) This information is confirmed as of August 2020. The revised edition and appendix should be also referred if there are. The laws and regulations cited herein are subject to change, and it is essential to consult the latest editions of the relevant laws and regulations.

Substances	Laws and regulations (examples)
Cadmium and cadmium compounds	European Union. REACH Regulation (EC) No. 1907/2006. Annex XVII
	European Union. RoHS Directive 2011/65/EU.
	European Union. Batteries Directive 2006/66/EC.
Lead and lead compounds	European Union. REACH Regulation (EC) No. 1907/2006. Annex XVII
	European Union. RoHS Directive 2011/65/EU. Annex XVII
	European Union. Batteries Directive 2006/66/EC.
Mercury and mercury compounds	European Union. REACH Regulation (EC) No. 1907/2006. Annex XVII
	European Union. RoHS Directive 2011/65/EU.
	European Union. Batteries Directive 2006/66/EC.
Hexavalent chromium compounds	European Union. REACH Regulation (EC) No. 1907/2006. Annex XVII
	European Union. RoHS Directive 2011/65/EU.
Polybrominated biphenyls (PBB)	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.
	European Union. RoHS Directive 2011/65/EU.
Polybrominated diphenylethers (PBDE)	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.
	European Union. RoHS Directive 2011/65/EU.
Hexabromocyclododecane (HBCDD)	European Union. REACH Regulation (EC) No. 1907/2006.
	European Union. EU POPs Regulation (EC) No 2019/1021.
	European Union. EU POPs Regulation (EC) No 2019/1021.
Polychlorinated biphenyls (PCB)	Japan: Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical substances, Class 1
	European Union. EU POPs Regulation (EC) No 2019/1021.
Polychlorinated naphthalenes (PCN)	Japan: Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical substances, Class 1
	European Union. EU POPs Regulation (EC) No 2019/1021.
Polychlorinated terphenyls (PCT)	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.
Short-chain chlorinated paraffins (SCCP)	European Union. EU POPs Regulation (EC) No 2019/1021.
Tris(2-chloroethyl) phosphate (TCEP), Tris(2-chloro-1-methylethyl) phosphate (TCPP), Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	United States. Vermont State. Act 85
Hydrofluorocarbon (HFC), Perfluorocarbon (PFC), Sulfur hexafluoride (SF6)	European Union. Regulation (EU) No 517/2014
Ozone depleting substances (ODS)	European Union. EU regulation (EC) No. 2037/2000.
	EC 1005/2009
	Montreal Protocol on Substances that Deplete the Ozone Layer
Perfluorooctane sulfonates (PFOS)	European Union. EU POPs Regulation (EC) No 2019/1021.
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.

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Substances	Laws and regulations (examples)
Trisubstituted organic tin compounds(incl. tributyltin (TBT) compounds and triphenyltin (TPT) compounds)	European Union. REACH Regulation (EC) No. 1907/2006 Annex
	Japan. Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances, Class I and Class II.
Dibutyltin (DBT) compounds	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.
Dioctyltin (DOT) compounds	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.
Beryllium oxide	European Union. WEEE Directive 2002/96/EC.
Cobalt dichloride	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.
Tributyltin oxide (TBTO)	Japan: Law Concerning the Examination and Regulation of Manufacture,etc.of Chemical substances, Class 1
Diarsenic trioxide, Diarsenic pentaoxide	European Union. REACH Regulation (EC) No. 1907/2006 XIV.
Bis (2-ethylhexyl)phthalate, Dibutyl phthalate, Benzyl butyl phthalate,Diisobutyl phthalate	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.
	European Union. RoHS Directive 2011/65/EU, 2015.863/EU.
Asbestos	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.
Specific azo compounds	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.
Formaldehyde	United States. Formaldehyde regulation e-CFR Title40 Part770
	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.
2-benzotriazol-2-yl-4,6-di-tert-butylphenol(UV-320)	Japan. Law Concerning the Examination and Regulation of Manufacture of Chemical Substances, Class I.
	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.
Dimethyl fumarate (DMF)	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.
Polycyclic aromatic hydrocarbons (PAHs)	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.
Nickel and Nickel compounds	European Union. REACH Regulation (EC) No. 1907/2006 AnnexXVII.

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6. Survey procedures for environment-related substances

(1) When requested to investigate environmental-related substances of procurement items from the Company, please provide the following information.

1) 「chemSHERPA-AI/CI」

* 「chemSHERPA」 <https://chemsherpa.net/tool>

2) Material Component Analysis or Product Safety Data Sheets (MSDS)

* General electronic components are not required in principle.

Please obtain the material list of all the parts and raw materials used for procured items from the manufacturer, grasp the content of each substance and submit the material list or product safety data sheet (MSDS).

3) Detailed analysis data of RoHS substances

* General electronic components are not required in principle.

* Please submit the detailed analysis data for the ten RoHS substances for plastics (including rubber), paints and inks.

* Please submit the detailed analysis data for four substances (Cd, Pb, Hg, Cr⁺⁶) for metals.

Ten RoHS substances

Cadmium and cadmium compounds (Cd)

Bis (2-ethylhexyl)phthalate (DEHP)

Lead and lead compounds (Pb)

Dibutyl phthalate (DBP)

Hexavalent chromium compounds (Cr⁺⁶)

Diisobutyl phthalate (DIBP)

Polybrominated diphenylethers (PBDE)

Polybrominated biphenyls (PBB)

Period of validity for the detailed analysis data of the RoHS substances

In principle, the detailed analysis data of the RoHS substances which can be contained in newly adopted parts is valid for two years from the date of analysis.

4) Certificate of non-inclusion

* General electronic components are not required in principle.

Please submit the "Certificate for environment-related substances within products"

(HS-Q3-07 Form 1) to certify that the product does not contain any Level 1 controlled chemical substances.

(2) Confirmation of Procured Goods

This company shall regularly check for the presence of controlled substances contained within procured goods as follows:

1. Goods shall be tested for cadmium (Cd), lead (Pb), mercury (Hg), chrome (Cr) and bromine (Br) using a fluorescent x-ray spectrometer.

2. If there is any evidence of controlled substances after fluorescent x-ray analysis, the company may ask the supplier to submit a detailed analysis of the RoHS substances again.

(3) Correspondence when changing

* Changes in materials, material suppliers, production sites, manufacturing processes, etc. – Please submit the necessary data to the department in charge of surveys depending on the changes.

Date:

Company name:

Department name:

Person in charge:

Sign
or
Stamp

Certificate for environment-related substances within products (Ver. 2)

This is to certify that none of the parts, materials or units supplied to your company contain Level 1 substances (prohibited substances) in their materials, packaging or additives used during manufacture.
* Please refer to Green Procurement Guideline (HS-Q3-07) for details of Level 1 substances and uses.

Level 1 Prohibited Substances

1	Cadmium and cadmium compounds	22	Diocetyl tin (DOT) compounds
2	Lead and lead compounds	23	Tributyl tin oxide(TBTO)
3	Mercury and mercury compounds	24	Beryllium oxide
4	Chromium (VI) compounds	25	Cobalt dichloride
5	Polybrominated biphenyls (PBBs)	26	Diarsenic trioxide
6	Polybrominated diphenylethers (PBDEs)	27	Diarsenic pentoxide
7	Hexabromocyclododecane (HBCDD)	28	Asbestos
8	Polychlorinated biphenyls (PCBs) and specific substitutes	29	Azocolourants and azodyes which form certain aromatic amines
9	Polychlorinated naphthalenes (PCNs)	30	Formaldehyde
10	Polychlorinated terphenyls (PCTs)	31	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	32	Dimethyl fumarate (DMF)
12	Tris(2-chloroethyl)phosphate (TCEP)	33	Polycyclic aromatic hydrocarbons (PAH)
13	Tris(1-chloro-2-propyl)phosphate (TCPP)	34	Bis (2-ethylhexyl)phthalate (DEHP)
14	Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)	35	Dibutyl phthalate (DBP)
15	Fluorinated greenhouse gases (PFC, SF6, HFC)	36	Benzyl butyl phthalate (BBP)
16	Polyvinyl chloride (PVC)and PVC blends	37	Diisobutyl phthalate (DIBP)
17	Ozone depleting substances (ODS)	38	Diisononyl phthalate (DINP) * Parts and materials for children's toy or child care article that can be placed in a child's mouth
18	Perfluorooctane sulfonates (PFOS)	39	Di-isodecyl phthalate (DIDP) * Parts and materials for children's toy or child care article that can be placed in a child's mouth
19	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	40	Di-n-octyl phthalate (DNOP) * Parts and materials for children's toy or child care article that can be placed in a child's mouth
20	Tri-substituted organostannic compounds	41	Radioactive substances
21	Dibutyltin (DBT) compounds		

Related Products

Name	Delivery Number (Delivery number, to Kaga Micro Solution Co.,Ltd.)

For further information about this guideline ,please contact:

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Quality Assurance Div

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