Green Procurement Guidelines

(Management Standards for Environment-related Controlled Substances)

Standard number : HS-Q3-07

8th Edition 20 January 2026

Kaga Micro Solution Co.,Ltd.

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HS-Q3-07	Green Procurement Guidelines	Revision	-

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 ・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 ・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 ・Change of controlled substances ・Addition of RoHS directive exemption information list ・Review of a material and each country, local laws and regulations	Sakurai	Ogura
5	2021.8.1	In response to the latest chemical substance regulations in each country / region, ・Review of controlled substances ・Restriction of Hazardous Directive Exemption Information ・Review of substances and laws and regulations of each country / region ・Non-use guarantee card addition of substances	Sakurai	Ikkai
6	2022.9.1	In response to the latest chemical substance regulations in each country / region, ・Review of controlled substances ・Review of substances and laws and regulations of each country / region ・Non-use guarantee card addition of substances	Sakurai	Ikkai
7	2023.9.1	In response to the latest chemical substance regulations in each country / region, ・Review of controlled substances ・Review of substances and laws and regulations of each country / region ・Revision of non-use warranty	Sakurai	Ikkai
8	2026.1.20	① In response to the latest chemical substance regulations in each country / region, ・Review of controlled substances ・Review of substances and laws and regulations of each country / region ②Revised Table 53: RoHS Directive Exemptions ③Removed section 5.4 regarding batteries ④Changed the chemSHERPA URL ⑤Removed the Non-Use Guarantee	Sakurai	Ikkai

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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. Prohibited

   Substances and their uses Prohibit the use of substances in parts and materials.

2. Controlled

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

3. 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.

(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

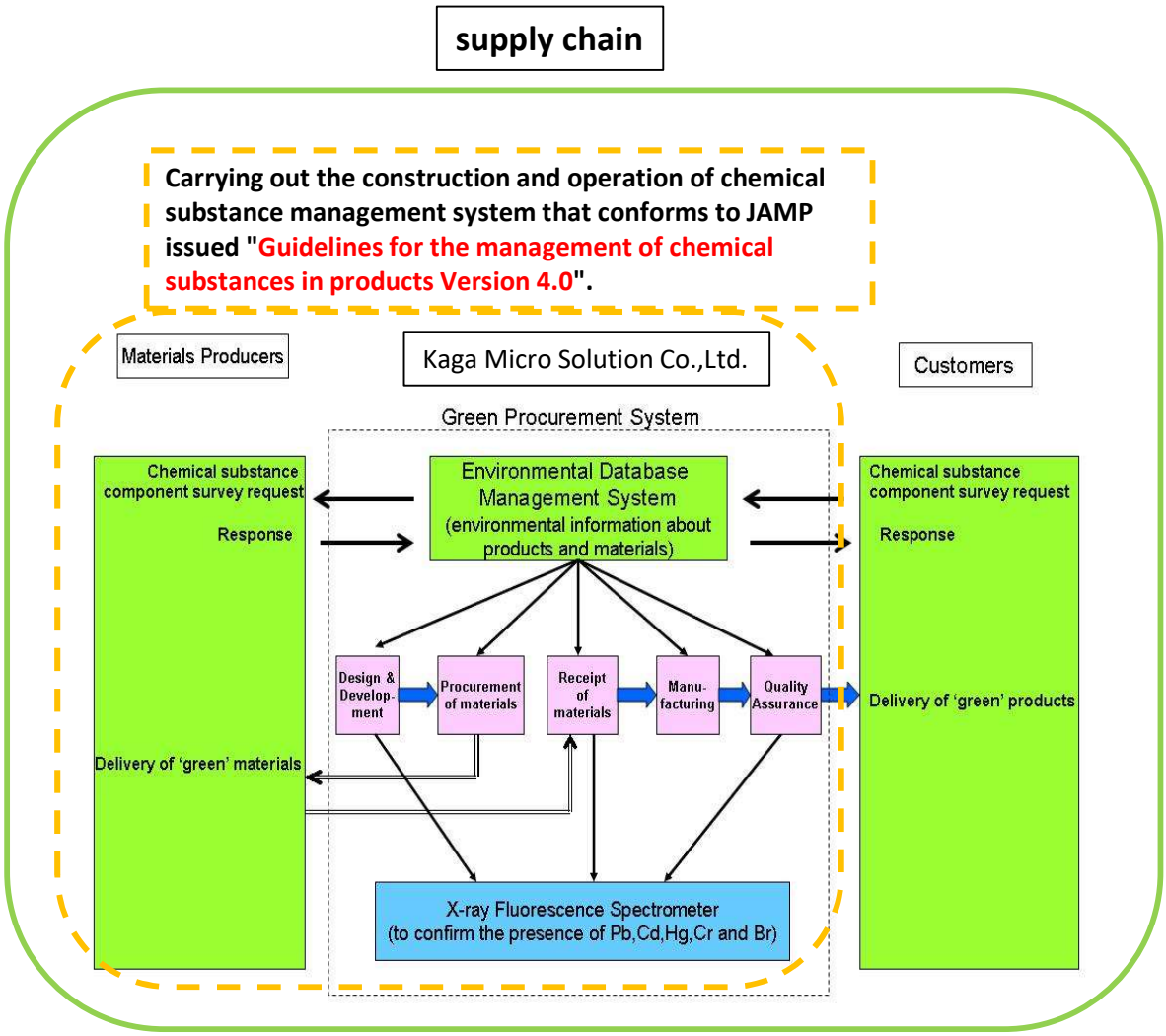
Residuals of a substance in parts or devices of a product or in materials of such parts and devices by intentional addition, filling, mixture, or adhesion, in order to provide certain properties, appearance, characteristics, attributes or quality of the product.

(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 "intentional additions".

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
Beryllium oxide
Cobalt dichloride
Diarsenic trioxide
Diarsenic pentoxide
Nickel
Diisononyl phthalate (DINP)
Di-isodecyl phthalate (DIDP)
Di-n-octyl phthalate (DNOP)

Table 5.1 List of controlled substances Continued

Substance Name
Asbestos
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)
Phenol, Isopropylated Phosphate (PIP) (3:1)
Long-chain (C9-C21) perfluorocarboxylic acids (PFCAs) and its salts
Dechlorane Plus
Pentachlorothiophenol(PCTP)
Hexachlorobutadiene(HCBD)
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
Substances in candidate list for authorization of EU REACH regulation(SVHC)
Medium-chain chlorinated paraffins(MCCP)

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

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

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
Prohibited	- Parts and materials for EEE - Parts and materials for carrying bags, carrying cases, carrying pouches	less than 1000ppm
	- Parts and materials for children's toy or child care article	Total of DEHP, DBP, BBP and DIBP is less than 1000ppm

Material group/Material name	CAS No
Cadmium and cadmium compounds	-

Mgmt level	Targets	Threshold level
Prohibited	- All (See "5.3 Additional rules for packaging components and materials." See "5.4 Additional rules for batteries.")	less than 100ppm
Exemption	Refer to Table 5.3	

Material group/Material name	CAS No
Lead and lead compounds	-

Mgmt level	Targets	Threshold level
Prohibited	- All (See "5.3 Additional rules for packaging components and materials." See "5.4 Additional rules for batteries.")	less than 1000ppm
Exemption	Refer to Table 5.3	

Material group/Material name	CAS No
Mercury and mercury compounds	-

Mgmt level	Targets	Threshold level
Prohibited	- All (See "5.3 Additional rules for packaging components and materials." See "5.4 Additional rules for batteries.")	less than 1000ppm
Exemption	Refer to Table 5.3	

Material group/Material name	CAS No
Chromium (VI) compounds	-

Mgmt level	Targets	Threshold level
Prohibited	- Natural leather parts and materials	Less than 3ppm of total dry weight in leather part
	- All application other than the above (See "5.3 Additional rules for packaging components and	less than 1000ppm

Material group/Material name	CAS No
Polybrominated biphenyls (PBBs)	-

Mgmt level	Targets	Threshold level
Prohibited	- All	1000ppm未満

Material group/Material name	CAS No
Polybrominated diphenylethers (PBDEs)	-

Mgmt level	Targets	Threshold level
Prohibited	- All	1000ppm未満

Material group/Material name			CAS No
Hexabromocyclododecane (HBCDD)			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	Intentional use prohibited and less than 100ppm	

Material group/Material name			CAS No
Polychlorinated biphenyls (PCBs) and specific substitutes			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	Intentional use prohibited and less than 50ppm	

Material group/Material name			CAS No
Polychlorinated naphthalenes (PCNs)			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

Material group/Material name			CAS No
Polychlorinated terphenyls (PCTs)			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	less than 50ppm	

Material group/Material name			CAS No
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	Intentional use prohibited and less than 1000ppm	

Material group/Material name			CAS No
Tris(2-chloroethyl)phosphate (TCEP)			115-96-8
Mgmt level	Targets	Threshold level	
Prohibited	- All	less than 1000ppm	

Material group/Material name			CAS No
Tris(1-chloro-2-propyl)phosphate (TCPP)			13674-84-5
Mgmt level	Targets	Threshold level	
Prohibited	- All	less than 1000ppm	

Material group/Material name			CAS No
Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)			13674-87-8
Mgmt level	Targets	Threshold level	
Prohibited	- All	less than 1000ppm	

Material group/Material name		CAS No
Polyvinyl chloride (PVC)and PVC blends		9002-86-2
Mgmt level	Targets	Threshold level
Prohibited	″- 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	Prohibition of intentional use
Controlled	- All except the above	-

Material group/Material name		CAS No
Fluorinated greenhouse gases (PFC, SF6, HFC)		-
Mgmt level	Targets	Threshold level
Prohibited	- All	Prohibition of intentional 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
Prohibited	- All	Prohibition of intentional use

Material group/Material name		CAS No
Perfluorooctane sulfonates (PFOS), its salts and PFOS-related substances		-
Mgmt level	Targets	Threshold level
Prohibited	- All	・Intentional use prohibited and -In the case of PFOS(including its salts):less than 0.025mg/kg(0.0000025wt%) ・PFOS related substances:less than 1mg/kg(0.0001wt%)

Material group/Material name		CAS No
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA		-
Mgmt level	Targets	Threshold level
Prohibited	- All	・Intentional use prohibited and PFOA (including salt) is less than 0.025ppm ・For one or more PFOA-related substances in combination, the total concentration is less than 1 ppm″

Material group/Material name		CAS No
Perfluorohexane-1-sulfonic acid (PFHxS) and its salts and related substances		-
Mgmt level	Targets	Threshold level
Prohibited	- All	Intentional use prohibited and ・For PFHxS (including salt), less than 0.025ppm ・In the case of a combination of one or more PFHxS-related substances, the total concentration is less than 1 ppm

Material group/Material name			CAS No
including tributyltin (TBT) compounds and triphenyltin (TPT) compounds			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	Less than 1000 ppm tin concentration	

Material group/Material name			CAS No
Dibutyltin (DBT) compounds			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	Less than 1000 ppm tin concentration	

Material group/Material name			CAS No
Dioctyltin (DOT) compounds			-
Mgmt level	Targets	Threshold level	
Prohibited	- 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)	Less than 1000 ppm tin concentration	

Material group/Material name			CAS No
Beryllium oxide			-
Mgmt level	Targets	Threshold level	
Controlled	- All	less than 1000ppm	

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

Material group/Material name			CAS No
Diarsenic trioxide			1327-53-3
Mgmt level	Targets	Threshold level	
Prohibited	- Glass for LCD panels (including cover glasses,touchscreens, and backlights)	less than 1000ppm	
Controlled	- All application other than the above	less than 1000ppm	

Material group/Material name			CAS No
Diarsenic pentoxide			1303-28-2
Mgmt level	Targets	Threshold level	
Prohibited	- Glass for LCD panels (including cover glasses,touchscreens, and backlights)	less than 1000ppm	
Controlled	- All application other than the above	less than 1000ppm	

Material group/Material name			CAS No
Nickel			-
Mgmt level	Targets	Threshold level	
Prohibited	- All, where prolonged skin contact is expected	Prohibition of intentional use	
Controlled	- All application other than the above	-	

Material group/Material name			CAS No
Diisononyl phthalate (DINP)			28553-12-0 68515-48-0
Mgmt level	Targets	Threshold level	
Prohibited	- Parts and materials for children's toy or child care article that can be placed in a child's mouth	Less than 1000ppm of plasticized material	
Controlled	- All application other than the above	-	

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

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

Material group/Material name			CAS No
Asbestos			-
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

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	
Prohibited	- Textiles and Leather	Less than 30ppm generated amines in materials of finished textile/leather products	

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-chloroanilene)
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

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	
Prohibited	- All	Intentional use and less than 1000ppm	

Material group/Material name			CAS No
Dimethyl fumarate (DMF)			624-49-7
Mgmt level	Targets	Threshold level	
Prohibited	- All	less than 0.1ppm	

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	
Prohibited	- Rubber or plastic parts of toys and childcare articles that come into direct, prolonged or repetitive skin or oral cavity contact	Less than 0.5ppm in plastic or rubber parts	
	- Rubber or plastic parts that come into direct, prolonged or repetitive skin or oral cavity contact except those for toys or childcare articles	Less than 1ppm in plastic or rubber parts	

Material group/Material name			CAS No
Brominated flame retardants (BFR)(other than PBBs, PBDEs, or HBCDD)			-
Mgmt level	Targets	Threshold level	
Controlled	- Printed Wiring Board (PWB) Laminates	Total bromine content in substrate material is less than 900ppm	
	- Plastic materials except printed wiring board laminates	Less than 1000 ppm as bromine in plastic materials	

Material group/Material name			CAS No
Chlorinated flame retardants (CFR)(other than TCEP, TCPP, or TDCPP)			-
Mgmt level	Targets	Threshold level	
Controlled	- Printed Wiring Board (PWB) Laminates	Less than 900ppm total chlorine content in substrate materials	
	- Plastic materials except printed wiring board laminates	Less than 1000ppm of chlorine in plastic materials	

Material group/Material name			CAS No
Substances in candidate list for authorization of EU REACH regulation(SVHC)			-
Mgmt level	Targets	Threshold level	
Controlled	- All	Less than 1000ppm in article	

Material group/Material name			CAS No
Phenol, Isopropylated Phosphate (PIP) (3:1)			68937-41-7
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

Material group/Material name			CAS No
Long-chain (C9-C21) perfluorocarboxylic acids (PFCAs) and its salts			375-95-1 335-76-2 2058-94-8 307-55-1 72629-94-8 376-06-7 141074-63-7 67905-19-5 57475-95-3 16517-11-6 133921-38-7 68310-12-3 etc
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

Material group/Material name			CAS No
Pentachlorothiophenol(PCTP)			133-49-3
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

Material group/Material name			CAS No
Hexachlorobutadiene(HCBD)			87-68-3
Mgmt level	Targets	Threshold level	
Prohibited	- All	Intentional use prohibited and less than 75 ppm	

Material group/Material name			CAS No
Dechlorane Plus			13560-89-9
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

Material group/Material name			CAS No
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)			25973-55-1
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

Material group/Material name			CAS No
Medium chain chlorinated paraffin(MCCP)			85535-85-9 198840-65-2 1372804-76-6 etc
Mgmt level	Targets	Threshold level	
Prohibited	- All	Prohibition of intentional use	

Table 5.3 RoHS Directive Exempted Applications

＊ Exclusion deadline: Categories 1-7, 10

No	Material	Exemption	Exclusion deadline
1(f)- Ⅰ	Hg	Mercury in single capped (compact) fluorescent lamps for lamps designed to emit mainly light in the ultraviolet spectrum: not exceeding (per burner) 5 mg	2027/2/24
2(b)(4)-Ⅰ	Hg	Mercury in lamps for other general lighting and special purposes (e.g. induction lamps)not exceeding (per lamp): 15 mg	Under deliberation
2(b)(4)- Ⅱ	Hg	Mercury in lamps emitting mainly light in the ultraviolet spectrum,not exceeding (per lamp): 15 mg	2027/2/24
2(b)(4)-Ⅲ	Hg	Mercury in emergency lamps,,not exceeding (per lamp): 15 mg	2027/2/24
4(a)- Ⅰ	Hg	Mercury in low pressure non-phosphor coated discharge lamps, where the application requires the main range of the lampspectral output to be in the ultraviolet spectrum: up to 15mg (per lamp)	2027/2/24
4(b)	Hg	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 80: P ≤ 105 W: 16 mg may be used per burner	2027/2/22
4(c)-Ⅰ	Hg	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes P ≤ 155 W not exceeding (per burner):20 mg	2027/2/24
4(c)-Ⅱ	Hg	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes 155 W < P ≤ 405 W not exceeding (per burner):25 mg	2027/2/24
4(c)-Ⅲ	Hg	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes P > 405 W not exceeding (per burner):25 mg	2027/2/24
4(e)	Hg	Mercury in metal halide lamps (MH)	2027/2/22
4(f)- Ⅰ	Hg	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	2025/2/23
4(f)- Ⅱ	Hg	Mercury in high pressure mercury vapour lamps used in projectors where an output ≥ 2000 lumen ANSI is required	2027/2/24
4(f)-Ⅲ	Hg	Mercury in high pressure sodium vapour lamps used for horticulture lighting	2027/2/24
4(f)-Ⅳ	Hg	Mercury in lamps emitting light in the ultraviolet spectrum	2027/2/24
5(b)	Pb	Lead in glass of fluorescent tubes not exceeding 0.2% by weight	Under deliberation
6(a)	Pb	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight	2026/12/11
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	2027/6/30
6(a)-Ⅱ	Pb	Lead as an alloying element in batch hot-dip galvanised steel components containing up to 0,2 % lead by weight	2027/6/30
6(b)	Pb	Lead as an alloying element in aluminium containing up to 0.4% lead by weight	2027/6/11
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	2026/12/11
6(b)-Ⅱ	Pb	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	2027/6/11
6(c)	Pb	Copper alloy containing up to 4% lead by weight	2027/6/30
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)	2027/6/30
7(a)-Ⅰ	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) for internal interconnections for attaching die, or other components along with a die in semiconductor assembly with steady state or transient/impulse currents of 0,1 A or greater or blocking voltages beyond 10 V, or die edge sizes larger than 0,3 mm × 0,3 mm(except applications covered by point 24 of this Annex)	2027/12/31

No	Material	Exemption	Exclusion deadline
7(a)-II	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) for integral (meaning internal and external) connections of die attach in electrical and electronic components, if all the following conditions are met: —the thermal conductivity of the cured/sintered die-attach material is > 35 W/(m × K), —the electrical conductivity of the cured/sintered die-attach material is > 4,7 MS/m, —solidus melting temperature is higher than 260 °C (except applications covered by point 24 of this Annex)	2027/12/31
7(a)-III	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) in first level solder joints (internal or integral connections – meaning internal and external) for manufacturing components so that subsequent mounting of electronic components onto subassemblies (i.e. modules, sub-circuit boards, substrates, or point-to-point soldering) with a secondary solder does not reflow the first level solder. This sub-entry excludes die attach applications and hermetic sealings (except applications covered by point 24 of this Annex)	2027/12/31
7(a)-IV	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) in second level solder joints for the attachment of components to printed circuit board or lead frames: (1)in solder balls for the attachment of ceramic ball-grid-array (BGA); (2)in high temperature plastic overmouldings (> 220 °C) (except applications covered by point 24 of this Annex)	2027/12/31
7(a)-V	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) as a hermetic sealing material between: (1)a ceramic package or plug and a metal case; (2)component terminations and an internal sub-part (except applications covered by point 24 of this Annex)	2027/12/31
7(a)-VI	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) for establishing electrical connections between lamp components in incandescent reflector lamps for infrared heating, high intensity discharge lamps, or oven lamps (except applications covered by point 24 of this Annex)	2027/12/31
7(a)-VII	Pb	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) for audio transducers where the peak operating temperature exceeds 200 °C (except applications covered by point 24 of this Annex)	2027/12/31
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)	2027/6/30
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)	2027/12/31

No	Material	Exemption	Exclusion deadline
7(c)-V	Pb	Electrical and electronic components containing lead in a glass or glass matrix compound that fulfils any of the following functions: (1)for protection and electrical insulation in glass beads of high-voltage diodes and glass layers for wafers; (2)for hermetic sealing between ceramic, metal and/or glass parts; (3)for bonding purposes in a process parameter window for < 500 °C combined with a viscosity of 1 013,3 dPas ('glass-transition temperature'); (4)for use as a resistive material such as ink, with a resistivity range from 1 ohm/square to 100 megohm/square, excluding trimmer potentiometers; (5)for use in chemically modified glass surfaces for microchannel plates (MCPs), channel electron multipliers (CEMs) and resistive glass products (RGPs).	2027/12/31
7(c)-VI	Pb	Electrical and electronic components containing lead in a ceramic that fulfils any of the following functions: (1)for use in piezoelectric lead zirconium titanate (PZT) ceramics; (2)for providing ceramics with a positive temperature coefficient (PTC). (except applications covered by points 7(c)-II, 7(c)-III and 7(c)-IV of this Annex as well as point 14 of Annex IV)	2027/12/31
8(b)	Cd	Cadmium and its compounds in electrical contacts	Under deliberation
8(b)-I	Cd	Cadmium and its compounds in electrical contacts used in: — circuit breakers, — thermal sensing controls, — thermal motor protectors (excluding hermetic thermal motor protectors), — AC switches rated at: — 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
13(a)	Pb	Lead in white glasses used for optical applications	Under deliberation
13(b)	Cd,Pb	Cadmium and lead in filter glasses and glasses used for reflectance standards	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 Annex III	Under deliberation
13(b)-(III)	Cd,Pb	Cadmium and lead in glazes used for reflectance standards	Under deliberation
15	Pb	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Under deliberation
15(a)	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 mm2 or larger in any semiconductor technology node; —stacked die packages with die of 300 mm2 or larger, or silicon interposers of 300 mm2 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 (BaSi2O5: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 (BaSi2O5:Pb) when used in medical phototherapy equipment	Under deliberation
24	Pb	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Under deliberation

No	Material	Exemption	Exclusion deadline
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
39(b)	Cd	Cadmium in downshifting semiconductor nanocrystal quantum dots directly deposited on LED semiconductor chips for use in display and projecction applications (<5μg Cd per mm2 of LED chip surface) with a maximum amount per device of 1 mg	2027/12/31

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
Prohibited	– All packaging components and materials	The total concentration of lead, cadmium, mercury and hexavalent chromium must not exceed 100 ppm.
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 Substances, laws and regulations in various countries

Note) This information is confirmed as of December 2025. 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.
	Regulation(EU)2023/1542)
Lead and lead compounds	European Union. REACH Regulation (EC) No. 1907/2006.Annex XVII
	European Union. RoHS Directive 2011/65/EU.Annex XVII
	Regulation(EU)2023/1542)
Mercury and mercury compounds	European Union. REACH Regulation (EC) No. 1907/2006.Annex XVII
	European Union. RoHS Directive 2011/65/EU.
	Regulation(EU)2023/1542)
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. Persistent Organic Pollutants (POPs) Regulation (EC) No. 2019/1021
	European Union. RoHS Directive 2011/65/EU.
Polybrominated diphenylethers (PBDE)	European Union. Persistent Organic Pollutants (POPs) Regulation (EC) No. 2019/1021
	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)	[EU] Regulation on substances that deplete the ozone layer (EC) No. 1005/2009;
	Montreal Protocol on Substances that Deplete the Ozone Layer
Perfluorooctane sulfonates (PFOS)	European Union. EU POPs Regulation (EC) No 2019/1021.
	Japan: Law Concerning the Examination and Regulation of Manufacture,etc.of Chemical substances, Class 1
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	European Union. Persistent Organic Pollutants (POPs) Regulation (EC) No. 2019/1021

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.
Cobalt dichloride	European Union. REACH Regulation (EC) No. 1907/2006 Annex XVII.
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.
2-benzotriazol-2-yl-4,6-di-tert-butylphenol(UV-320)	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.
Phenol, Isopropylated Phosphate (PIP) (3:1)	USA:TSCA Priority chemicals
Long-chain (C9-C21) perfluorocarboxylic acids (PFCAs) and its salts	European Union. REACH Regulation (EC) No. 1907/2006 Annex POPs regulation
Pentachlorothiophenol(PCTP)	USA:TSCA Priority chemicals
Hexachlorobutadiene(HCBD)	USA:TSCA Priority chemicals
Dechlorane Plus	Canada　Prohibition of Certain Toxic Substances Regulations
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	European Union. Persistent Organic Pollutants (POPs) Regulation (EC) No. 2019/1021
Medium Chain Chlorinated Paraffins (MCCP)	POPs regulation

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://cmp-consortium.com/chemsherpa/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.

(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.

For further information about this guideline ,please contact:
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