IDEC

Think Automation and beyond...

IDEC Group Green Procurement Guidelines（Ver.3.0）ANNEX

Restricted chemicals　*1

Table 1. Prohibited chemicals

No.	Chemical substances	Threshold values	Subjects of restrictions	Main related laws, regulations, conventions
1	Cadmium and its compounds	Less than 100 ppm	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Regulation	EU RoHS Directive China RoHS
2	Lead and its compounds	Less than 1000 ppm *2	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Regulation	EU RoHS Directive China RoHS
3	Mercury and its compounds	Less than 1000 ppm	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Regulation	EU RoHS Directive China RoHS Minamata Convention on Mercury
4	Hexavalent chromium compounds	Less than 1000 ppm	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Regulation	EU RoHS Directive China RoHS
1-4	Cadmium, lead, hexavalent chromium, and mercury	Intentional use prohibited and less than 100 ppm in total	Packaging and packing materials for IDEC products	EU Packing and Packing Waste Directives, US The Model Toxics in Packaging Legislation
5	Polybrominated biphenyls (PBB)	Intentional use prohibited and less than 1000 ppm	All uses	EU RoHS Directive Japan Regulation of Chemical Substances China RoHS EU POPs Regulations Annex Ⅰ
6	Polybrominated diphenyl ethers (PBDE)	Intentional use prohibited and less than 500 ppm	All uses	EU RoHS Directive Japan Regulation of Chemical Substances China RoHS EU POPs Regulations Annex Ⅰ
7	Bis(2-Ethylhexyl) phthalate (DEHP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
8	Dibutyl phthalate (DBP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
9	Benzyl butyl phthalate (BBP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
10	Diisobutyl phthalate (DIBP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
7-10	BBP, DBP, DEHP, DIBP	Less than 100 ppm in total	Packaging and packing materials for IDEC products	US The Model Toxics in Packaging Legislation
11	Polychlorinated biphenyls (PCBs)	Intentional use prohibited and less than 50 ppm	All uses	Japan Regulation of Chemical Substances EU POPs Regulations Annex Ⅰ
12	Polychlorinated terphenyls (PCTs)	Less than 50 ppm	All uses	EU REACH Regulations, Annex XVII
13	Asbestos	Intentional use prohibited	All uses	EU REACH Regulations, Annex XVII
14	Tri-substituted organostannic compounds	Less than 1000 ppm by weight of tin	All uses	Japan Regulation of Chemical Substances EU REACH Regulations, Annex XVII
15	Short-Chain Chlorinated Paraffin (SCCPs) (C10 - 13)	Intentional use prohibited and less than 1500 ppm	All uses	Japan Regulation of Chemical Substances EU POPs Regulations Annex Ⅰ

No.	Chemical substances	Threshold values	Subjects of restrictions	Main related laws, regulations, conventions
16	Azocolourants and Azodyes	Release of one or more aromatic amines exceeding 30 ppm	Textile and leather parts that may come into direct contact with human skin or oral cavities for a long period of time	EU REACH Regulations Annex XVII
17	Polychlorinated naphthalenes (CL>/=1)	Intentional use prohibited	All uses	Japan Regulation of Chemical Substances EU POPs Regulations Annex Ⅰ
18	Ozone-depleting substances	Intentional use prohibited	All uses and use in producing process	Japan Regulation on the Protection of the Ozone Laye The Montreal Protocol on Substances that Deplete the Ozone Layer
19	Dibenzothiophene (DBT) compounds	Less than 1000 ppm by weight of tin	All uses	EU REACH Regulations Annex XVII
20	Dioctyltin (DOT) compounds	Less than 1000 ppm by weight of tin	Textiles coming into contact with the skin Two-ingredient greenhouse-effect mold kit	EU REACH Regulations Annex XVII
21	Formaldehyde	Less than 75 ppm	Textile or wood-based parts	EU REACH Regulations Annex XVII
22	Perfluorooctanoic Sulfonate (PFOS), their salts and PFOS related substances	PFOS and their salts: less than 0.025 ppm PFOS-related substances: less than 1 ppm in total	All uses	Japan Regulation of Chemical Substances EU POPs Regulations Annex Ⅰ
23	Perfluorooctanoic acid (PFOA), their salts and PFOA related substances	PFOA and their salts: less than 0.025 ppm PFOA-related substances: less than 1 ppm in total	All uses	EU REACH Regulations Annex XVII
24	2-(2H-1,2,3-benzotriazole-2-yl)-4,6-dii-tert-butylphenol (UV-320)	Intentional use prohibited	All uses	Japan Regulation of Chemical Substances EU REACH Regulations, Annex XIV
25	Dimethyl fumarate	Less than 0.1 ppm	All uses	EU REACH Regulations, Annex XVII
26	Polycyclic aromatic hydrocarbons (PAH)	Less than 1 ppm	Rubber or plastic parts that may come into contact with human skin or oral cavities directly for a long period of time or repeated contact for a short period of time	EU REACH Regulations, Annex XVII
27	Hexabromocyclododecane (HBCD/HBCDD)	Intentional use prohibited and less than 75 ppm	All uses	Japan Regulation of Chemical Substances EU POPs Regulations Annex Ⅰ
28	Hexachlorobenzene (HCB)	Intentional use prohibited and less than 10 ppm	All uses	Japan Regulation of Chemical Substances EU POPs Regulations Annex Ⅰ
29	Perfluorocarboxylic acids (PFCA) (C9-C14), their salts and related substances	PFCA (C9-C14) and their salts: less than 0.025 ppm PFCA (C9-C14)-related substances: less than 0.26 ppm in total	All uses	EU REACH Regulations, Annex XVII
30	Phenol, isopropylphosphoric acid (3: 1) (PIP (3: 1))	Intentional use prohibited and less than 1000 ppm	All uses	US TSCA
31	Pentachlorothiophenol (PCTP)	Intentional use prohibited and less than1000 ppm	All uses	US TSCA

No.	Chemical substances	Threshold values	Subjects of restrictions	Main related laws, regulations, conventions
32	Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related substances	PFHxS and their salts: less than 0.025 ppm, PFHxS -related substances: total less than 1 ppm	All uses	Japan Regulation of Chemical Substances EU POPs Regulations Annex Ⅰ
33	Dechlorane Plus CAS RN®: 13560-89-9, 135821-03-3, 135821-74-8	Intentional use prohibited	All uses	POPs Convention
34	2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	Intentional use prohibited	All uses	POPs Convention
35	Chlorinated paraffins with carbon chain lengths in the range C14–17 and chlorination levels at or exceeding 45 per cent chlorine by weight (MCCP)	Intentional use prohibited and less than 1500 ppm	All uses	POPs Convention
36	Long-chain perfluorocarboxylic acids (LC-PFCAs), their salts and related compounds	LC-PFCA and their salts: less than 0.025 ppm LC-PFCA-related substances: less than 1 ppm in total	All uses	POPs Convention
37	Mineral oil aromatic hydrocarbons (MOAH) comprising from 1 to 7 aromatic rings	Less than 0.1% and less than 1 ppm MOAH compounds containing 3 to 7 aromatic rings	Inks on packaging and packing for IDEC products	French Circular Economy Law Mineral Oil Requirements
38	Hydrocarbons saturated with mineral oil (MOSH) containing 16 to 35 carbon atoms	Less than 0.1%	Inks on packaging and packing for IDEC products	French Circular Economy Law Mineral Oil Requirements

*1 If there is a chemical substance agreement for a product for a specific customer, that agreement will take precedence.
*2 Please report if lead is intentionally added to the material that covers the surface of the cord, or if the lead content exceeds 300 ppm (0.03%).

Table 2. Controlled chemicals

No.	Subject	Notes
1	IEC 62474	Other than prohibited chemicals under Annex 1
2	Candidate substances for permission under EU REACH regulations (SVHCs)	Other than prohibited chemicals under Annex 1
3	Restricted substances under EU REACH Regulations, Annex XVII	Other than prohibited chemicals under Annex 1
4	chemSHERPA substances subject to report	Other than prohibited chemicals under Annex 1

Table 3. Applicable laws and regulations

No.	Common name	Official name
1	Japan Regulation of Chemical Substances	Act on the Regulation of Manufacture and Evaluation of Chemical Substances
2	Japan Regulation on the Protection of the Ozone Layer	Act on the Protection of the Ozone Layer Through the Control of Specified Substances, etc. and Other Measures
3	Act on the Regulation of Radioisotopes, etc.	Act on the Regulation of Radioisotopes, etc.
4	EU RoHS Directive	Directive 2011/65/EU

No.	Common name	Official name
5	EU REACH Regulation Annex XVII	Regulation(EC) No 1907/2006 Annex X VII
6	EU REACH Regulation Annex XIV	Regulation(EC) No 1907/2006 Annex X IV
7	China RoHS	Administrative Measure on the Control of Pollution Caused by Electronic Information Products
8	POPs Convention	Stockholm Convention on Persistent Organic Pollutants
9	EU POPs Regulation Annex Ⅰ	Regulation (EC) No 850/2004 Annex Ⅰ
10	EU packaging directive	Directive 94/62/EC
11	US TSCA	US Toxic substances Control Act (TSCA)
12	US Model Toxics in Packaging Legislation	US Model Toxics in Packaging Legislation
13	EU Batteries Regulation	(EU) 2023/1542
14	Minamata Convention on Mercury	The Minamata Convention on Mercury
15	French Circular Economy Law Mineral Oil Requirements	LOI n°2020-105 relative à la lutte contre le gaspillage et à l'économie circulaire Article 112, D543-45-1

Table 4. Exemptions

No.	Material	Exemptions	Deadline at IDEC
EU RoHS Directive Annex Ⅲ (including draft)			
5(b)	Lead	Lead (not intentionally added) in soda lime glass used in the glass tube of fluorescent lamps, not exceeding 0,2 % by weight	2024/07/21
6(a)	Lead	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in galvanized steel containing up to 0,35 % lead by weight	2024/07/21
6(a)-Ⅰ	Lead	Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight	2026/07/21
6(a)-Ⅱ	Lead	Lead in batch hot dip galvanised steel components containing up to 0,2 % lead by weight	–
6(b)	Lead	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	2025/07/21
6(b)-Ⅰ	Lead	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	2025/07/21
6(b)-Ⅱ	Lead	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	2025/07/21
6(b)-Ⅲ	Lead	Lead as an alloying element in aluminium casting alloys containing up to 0.3% lead by weight provided it stems from lead-bearing aluminium scrap recycling	–
6(c)	Lead	Copper alloy containing up to 4 % lead by weight	–
7(a)	Lead	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead) (excludes those in the scope of exemption 24(a))	–
7(c)-Ⅰ	Lead	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	–
7(c)-Ⅱ	Lead	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	–
7(c)-Ⅳ	Lead	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	2024/07/21
7(c)-Ⅴ	Lead	Electrical and electronic components containing lead in a glass or glass matrix compound that fulfils Note 1 functions.	–
7(c)-Ⅵ	Lead	Electrical and electronic components containing lead in a ceramic that fulfils Note 2 functions (excluding items covered under item 7(c)-II, 7(c)-III and 7(c)-IV of this annex)	–
8(b)	Cadmium	Cadmium and its compounds in electrical contacts	2024/07/21

No.	Material	Exemptions	Deadline at IDEC
8(b)-Ⅱ	Cadmium	Cadmium and its compounds in electrical contacts of - circuit breakers - thermal sensing controls - thermal motor protectors (excluding hermetic thermal motor protectors) - AC switches - DC switches for RoHS category 8, 9, 11	2027/07/21
8(c)	Cadmium	Cadmium and its compounds in electrical contacts that are not covered by exemption 8(b)(II) for RoHS category 8, 9	2027/07/21
9	Hexavalent chromium	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	2024/7/21
13(a)	Lead	Lead in glasses used for optical applications excluding applications falling under points 13(b), 13(b)(I), 13(b)(II), 13(b)(IV) of this Annex	–
13(b)	Cadmium and lead	Cadmium and lead in filter glasses and glasses used for reflectance standards	2024/07/21
13(b)-Ⅰ	Lead	Lead in ion coloured optical filter glass types	–
13(b)-Ⅱ	Cadmium	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	–
13(b)-Ⅲ	Cadmium and lead	Cadmium and lead in glazes used for reflectance standards	2024/7/21
13(b)-Ⅳ	Cadmium	Cadmium in glazes used for reflectance standards	–
13(b)-Ⅴ	Lead	Lead compound coatings in infrared interference filters used in infrared gas analysis and mid-farinfrared spectroscopy	–
15	Lead	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	2024/7/21
15(a)	Lead	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.	2024/7/21
18(b)	Lead	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 ($BaSi_2O_5$:Pb)	–
18(b)-Ⅰ	Lead	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP ($BaSi_2O_5$:Pb) when used in medical phototherapy equipment	2024/7/21
18(b)-Ⅱ	Lead	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP ($BaSi_2O_5$:Pb) when used in medical phototherapy equipment, incl. extracorporeal photopheresis lamps For categories 5, 8 and 9 only	–
24	Lead	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	2024/7/21
24(a)	Lead	Lead in alloys used for soldering to through hole discoidal and/or planar array ceramic multilayer capacitors I) Not exceeding 50% by weight for applications where the components are mechanically mounted (e.g. by bolts, clips or screws) or bonded by a selective soldering / welding process and where the component will not exceed a temperature of 150ºC. II) In high melting point solders containing ≥85 % lead by weight for cases where the components are mounted using an elevated temperature process (e.g. solder reflow, welding) at a temperature of ≥150°C or where the component is rated to operate at a temperature of ≥150ºC.	–
29	Lead	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC(*)	–
32	Lead	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	–
34	Lead	Lead in cermet-based trimmer potentiometer elements	–

No.	Material	Exemptions	Deadline at IDEC
37	Lead	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	2024/7/21
39(a)	Cadmium	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µg Cd per mm^2 of display screen area)	2026/7/21
39(b)	Cadmium	Cadmium in downshifting semiconductor nanocrystal quantum dots directly deposited on LED semiconductor chips for use in display and projection applications (< 5 µg Cd per mm^2 of LED chip surface) with a maximum amount per device of 1 mg	—
41	Lead	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 (1)	2024/7/21
EU POPs Regulation No 2019/1021 ANNEX Ⅰ (including draft)			
UV-328 (1)	UV-328	UV-328 used in triacetyl cellulose film in polarisers	—
US TSCA			
PIP（3:1）(1)	PIP（3:1）	PIP (3:1)-containing products for use in circuit boards and wire harnesses	—
PIP（3:1）(2)	PIP（3:1）	Products or articles made of plastic recycled or reused, where no new PIP (3:1) was added.	—

Deadline at IDEC: Not applicable to products produced after the deadline.

Note 1:

1) protection and electrical insulation in glass beads of high voltage diodes and glass layers for wafer on the basis of a lead-zinc-borate or a lead-silica-borate glass body

2) for hermetic sealings between ceramic, metal and/or glass parts

3) for bonding purposes in a process parameter window for < 500°C combined with a viscosity of 1013,3 dPas (so called “glass-transition temperature”)

4) used as resistance materials such as ink, with a resistivity range from 1 Ohms/square to 1 Mega Ohms/square, excluding trimmer potentiometers

5) used in chemically modified glass surfaces for Microchannel Plates (MCPs), Channel Electron Multipliers (CEMs) and Resistive Glass Products (RGPs)

Note 2:

1) piezoelectric lead zirconium titanate (PZT) ceramics

2) providing ceramics with a positive temperature coefficient (PTC)

Revision Records

Revised Date/Version	Revised contents
January, 2020 Ver.2	Annex 1. Prohibited chemicals No.11 Polychlorinated biphenyls (PCBs): Added less than 50 ppm to threshold value. No.18 Polychlorinated naphthalenes: Changed to (CL>/=1) from (CL>/=2) No.19 Ozone-depleting substances: Added "use in producing process" to subjects of restrictions. No.25 Perfluorooctanoic acid (PFOA), its chlorides and PFOA related substances: Changed threshold value. PFOA and its chlorides: less than 0.025 ppm, PFOA-related substances: less than 5 ppm in total No.30 Deleted Reaction products of benzamine, N-phenyl, styrene, and 2,4,4-Trimethyl-pentene
	Annex 2. Controlled chemicals No.4 Changed to “chemSHERPA substances subject to control” from “JAMP substances subject to control”.
March, 2022 Ver.2.1	Annex 1. Prohibited chemicals Added the following substances; No.31 Perfluorocarboxylic acids (PFCAs) (C9-C14), their salts and related substances No.32 Phenol, isopropylphosphoric acid (3: 1) (PIP (3: 1)) No.33 Pentachlorothiophenol (PCTP)
July, 2023 Ver.2.2	Annex 1. Prohibited chemicals No.24 Added less than 1μg/m2 in the coated materials to threshold value Added the following substances; No.7-10 BBP, DBP, DEHP, DIBP total less than 100 ppm No.34 Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related substances No.35 Dechlorane Plus CAS RN®: 13560-89-9, 135821-03-3, 135821-74-8 No.36 UV-328 (2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol) No.37 Mineral oil aromatic hydrocarbons (MOAH) comprising from 1 to 7 aromatic rings No.38 Hydrocarbons saturated with mineral oil (MOSH) containing 16 to 35 carbon atoms Annex 4. Exemptions Reflected the final report of study to assess requests for a renewal of exemptions of RoHS Directive Annex III
November, 2024 Ver.3.0	Annex 1. Prohibited chemicals No.14 Incorporate Tributyltin oxide (TBTO) into Tri-substituted organostannic compounds No.15 Set the threshold for Short-Chain Chlorinated Paraffin (SCCPs) impurities No.27 Set the threshold for Hexabromocyclododecane (HBCD/HBCDD) impurities No.30 Set the threshold for Phenol, isopropylphosphoric acid (3: 1) (PIP (3: 1)) impurities No.35 Added Medium Chain Chlorinated paraffins (MCCP) No.36 Added Long-chain perfluorocarboxylic acids (LC-PFCAs), their salts and related compounds Annex 4. Exemptions - Added 18(b)-Ⅱ, 24(a), 39(b), UV-328 (1), PIP（3：1）(1) and PIP（3：1）(2) - Revised the following number’s deadline: 5(b), 6(a), 6(a) - Ⅰ, 6(b), 6(b)- Ⅰ, 6(b)- Ⅱ, 8(b)- Ⅱ, 8(c), 18(b)- Ⅰ, 24 - Revised the exclusions and deadline in 39(a)