

Target Regulated Substances List

Note 1: When the prohibited material contains 50% or more of the threshold, the proof material that doesn't exceed the threshold is demanded.
Note 2: The chemical substancel not published in this table with the substance that corresponds to the PRTR law, GADSL and REACH SVHC does the same management as "Managed substances".
REACH SVHC is shown in [Target-Regulated-Substance-List,SVHC] file.
Note 3: They are completely observed when provided for the chemical substance not published in this table by the agreement, the law, the ordinance, and the industry indicator, etc.
Note 4: The chemical substance not published in this table might be treated as a use prohibited material limited according to the customer request for the customer.
Note 5: If the customer-requested threshold value for substances with environmental impact is less than the threshold value specified in this list, individual measures shall be taken.

No.	Name of substance	Chemical substance no.	Management category						Concentration and application limits	Remarks
			Prohibited substances	Abolished substances	Deadline	Managed substances	Specific managed substances	Customer's requirement		
Prohibited substances : Substances that are prohibited to purchase, can in, use and contain in the product Abolished substances : Substances that need to be abolished by a defined period of time Managed substances : Substances that need management of the consumption *1:Safety and Health Law*Specified Chemical Substance trouble prevention rule", "○"=Special management substance(23) *2: "○"=It is an agreed substance as for the customer										
1	Cadmium and its compounds	—	○	○				○	[Permissible concentration: under 5ppm] Plastic, ink, rubber and paint [Permissible concentration: under 20ppm] Solder [Permissible concentration: under 50ppm] Metal materials and other materials above. [Permissible concentration: Total value for lead, cadmium, mercury and chrome (VI) is under 100ppm] Used for packaging Those excluded from the RoSH regulations shall be handled in accordance with the RoSH Directive.	Heavy metals, ELV Directive, RoSH2, REACH SVHC, PRTR(1-75)
2	Lead and its compounds	—	○	○				○	[Permissible concentration: under 50ppm] Plastic, ink and other materials (Except packaging use, metal and ceramic) [Permissible concentration: Under 1000ppm, unintentional content] Metal, [Permissible concentration: Total value for lead, cadmium, mercury and chrome (VI) is under 100ppm] Used for packaging Those excluded from the RoSH regulations shall be handled in accordance with the RoSH Directive. Leaded solder and its raw materials (plating, cream solder, etc.)	Heavy metals, ELV Directive, RoSH2, (1-304, 1-305)
3	Mercury and its compounds	—	○	○				○	[Permissible concentration: Under 5ppm, unintentional content] For uses other than those excluded from the RoSH regulations. [Permissible concentration: Total value for lead, cadmium, mercury and chrome (VI) is under 100ppm] Used for packaging Those excluded from the RoSH regulations shall be handled in accordance with the RoSH Directive.	Heavy metals, ELV Directive, RoSH2, PRTR(1-237)
4	Chrome (VI) compounds (hexavalent chromium compounds)	—	○	○				○	[Permissible concentration: under 500ppm] Except packaging use [Permissible concentration: Total value for lead, cadmium, mercury and chrome (VI) is under 100ppm] Used for packaging Those excluded from the RoSH regulations shall be handled in accordance with the RoSH Directive.	Safety and Health Law, Heavy metals, ELV Directive, RoSH2, PRTR(1-88)
5	Polybrominated biphenyls(PBB)	—	○					○	[Permissible concentration: under 100ppm, unintentional content]	Organic brominated compounds, RoSH2, Chemical Substances Control Law
6	Polybrominated diphenyl ethers(PBDE)	—	○					○	[Permissible concentration: under 100ppm, unintentional content]	Organic brominated compounds, RoSH2, Chemical Substances Control Law
60-1)	DBP(Dibutyl phthalate)	84-74-2	○					○		REACH SVHC, Denmark Phthalate regulation,RoSH2, PRTR (1-354)
60-2)	Di(2-ethylhexyl) phthalate	117-81-7	○					○		REACH SVHC, Denmark Phthalate regulation,RoSH2, PRTR(1-355)
60-3)	BBP(Butyl benzyl phthalate)	85-68-7	○					○		REACH SVHC, Denmark Phthalate regulation,RoSH2, PRTR(1-356)
60-9)	Diisobutyl phthalate	84-69-5	○					○		REACH SVHC, Denmark Phthalate regulation,RoSH2
7	Polychlorinated biphenyls(PCBs) and specific substitutes	1336-36-3 76253-60-6 81161-70-8 99688-47-8	○					○	[Non-detect (<0.1ppm)] [Intentional use prohibited]	Organic chloride compounds, Chemical Substances Control Law, PRTR(1-406) REACH Annex X.VII
8	Polychlorinated naphthalenes (PCN, with 1 chlorine or more)	—	○					○	[Permissible concentration: under 5ppm, unintentional content] lubricating	Chlorinated organic compounds, Chemical Substances Control Law (with 2 chlorine or more)
9	Chlorinated paraffins (CP) (Short chain chlorinated paraffin with carbon chain length of 10-13 and chlorine content of 50wt% or (Medium chain chlorinated paraffins, C14-C17)	— 85535-85-9	○					○	[Permissible concentration: under 300ppm, unintentional content]	Organic chloride compounds, REACH SVHC
10	Mirex	2385-85-5	○					○	For flame retardant, insecticide, antimold agents and all such uses	Organic chloride compounds, Chemical Substances Control Law
11	Tetrabromobisphenol A (TBBP-A)	79-94-7	○					○	[Permissible concentration: under 1000ppm, unintentional content]	Brominated flame retardant, The polymer is assumed to be "Other Organic brominated compounds"
12	Other chlorinated organic compounds (halogen-free-related substances) (Including chlorinated flame retardant)	—	○					○	For separate items required to be halogen-free (900ppm max Cl, 900ppm max Br, 1500ppm max Cl+Br) Other	Organic chloride compounds
	triclosan	3380-34-5						○		Antiseptic
	α-hexachlorocyclohexane, β-hexachlorocyclohexane, γ-hexachlorocyclohexane(Lindane)	—	○					○		BHC, Pesticide, Chemical Substances Control Law
	Chlordecone	143-50-0	○					○		Pesticide, Chemical Substances Control Law
13	Inorganic chlorinated substances (halogen-free-related substances)	—	○					○	For separate items required to be halogen-free (900ppm max Cl, 900ppm max Br, 1500ppm max Cl+Br) Other	Inorganic chloride substances
14	Hexabromocyclododecane(HBCDD) and all major diastereoisomers	25637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8	○					○	[Intentional use prohibited]	Brominated flame retardant, Chemical Substances Control Law, REACH SVHC 134237-50-6,134237-51-7,134237-52-8
15	Other brominated organic compounds (halogen-free-related substances) (Including brominated flame retardant)	—	○					○	For separate items required to be halogen-free (900ppm max Cl, 900ppm max Br, 1500ppm max Cl+Br) Other	Organic brominated compounds
16	Inorganic brominated substances (halogen-free-related substances)	—	○					○	For separate items required to be halogen-free (900ppm max Cl, 900ppm max Br, 1500ppm max Cl+Br) Other	Organic brominated compounds
17	Tributyl tin oxide(TBTO)	56-35-9	○					○	—	Chemical Substances Control Law, REACH SVHC
18	Tributyl, triphenyl tin compounds	—	○					○	—	Chemical Substances Control Law
19	Dibutyltin (DBT) compounds	—	○					○	[Permissible concentration: under 1000ppm (the tin)]	—
20	Diocetyltn (DOT) compounds	—	○					○	[Permissible concentration: under 1000ppm, unintentional content (the tin)] All uses listed below are prohibited. •Textile articles intended to come into contact with skin •Wall and floor coverings •Two-component room temperature vulcanization molding kits (RTV-2	—
21	Dichlorobenzene and its salts	—	○					○	—	Safety and Health Law
22	α-naphthylamine and its salts	—	○					○	—	Safety and Health Law
23	o-tolidine and its salts	—	○					○	—	Safety and Health Law, PRTR(1-231)
24	Asbestos	—	○					○	—	Safety and Health Law, PRTR(1-33)
25	Dianisidine and its salts	—	○					○	—	Safety and Health Law
26	Beryllium and its compounds	—	○					○	[Permissible concentration: under 1000ppm]	Safety and Health Law, PRTR(1-394)
27	Beryllium oxide	1304-56-9	○					○	—	PRTR(1-394)
28	Benzotrichloride	98-07-7	○					○	—	Safety and Health Law, PRTR(1-397)
29	Ethyleneimine	151-56-4	○					○	—	Safety and Health Law, PRTR(1-54)
30	Vinyl chloride (monomers)	75-01-4	○					○	—	Safety and Health Law, PRTR(1-94)
31	Auramine	2465-27-2	○					○	—	Safety and Health Law
32	Chloromethyl methyl ether	107-30-2	○					○	—	Safety and Health Law
33	Benzene	71-43-2	○					○	—	Safety and Health Law, PRTR(1-400)
34	3,3'-dichloro-4,4'-diamino diphenyl methane	101-14-4	○					○	—	Safety and Health Law, PRTR(1-160), REACH SVHC
35	Nickel carbonyl	13463-39-3	○					○	—	Safety and Health Law
36	β-propiolactone	57-57-8	○					○	—	Safety and Health Law
37	p-dimethylaminoazobenzene	60-11-7	○					○	—	Safety and Health Law
38	Magenta	632-99-5	○					○	—	Safety and Health Law
39	Coal tar	—	○					○	—	Safety and Health Law
40	Azo compounds and aromatic amines*1	—	○					○	Part in contact with the human body of a product made for sustained human contact that has azo pigments that can generate the specific amines on the separate table when decomposed [Permissible concentration: total content, under 30ppm]	EU Directive (76/769/EEC)
41	Polyvinyl chloride (PVC) and its blends	—	○					○	Target: Primary materials and Packaging materials Related to Secondary materials	
42	Ozone depleting substances (ODS) Chlorofluorocarbon (CFC) Hydrochlorofluorocarbon (HCFC) 1,1,1-trichloromethane (methyl chloroform) Methyl bromide Carbon tetrachloride	— — — 71-55-6 74-83-9 56-23-5	— ○ ○ ○ ○ ○					— — — — — —	Used at time of manufacture	Ozone depleting substances PRTR(1-185) PRTR(1-279) PRTR(1-386) PRTR(1-149)
43	Fluorinated greenhouse gases(HFC,PFC,SF6)	—	—					—	Used at time of manufacture (the refrigerative usage is excluded.)	
44	Organochlorine solvents 1,1,2-trichloroethane 1,2-dichloroethane 1,1-dichloroethylene 1,2-dichloroethylene Chloromethylene	— 79-00-5 107-06-2 75-35-4 540-59-0 75-09-2	— ○ ○ ○ ○ ○					— — — — — —	Used at time of manufacture	Chlorine organic solvents PRTR(1-280) PRTR(1-157), REACH SVHC PRTR(1-158) PRTR(1-186)

No.	Name of substance	Chemical substance no.	Management category						Concentration and application limits	Remarks
			Prohibited substances	Abolished substances	Relevant at		Managed substances	Customer's requirement		
					○	△				
										Prohibited substances : Substances that are prohibited to purchase, can in, use and contain in the product Abolished substances : Substances that need to be abolished by a definite period of time Managed substances : Substances that need management of the consumption *1:Safety and Health Law*Specified Chemical Substance trouble prevention rule" , "○"=Special management substance(23) *2: "○"=It is an agreed substance as for the customer
	Chloroform	67-66-3	○					○	—	PRTR(1-127) , REACH SVHC
	Trichloroethylene	79-01-6	○					○	—	
	Tetrachloroethylene	127-18-4	○					○	—	
	Pentachloroethylene	76-01-7	○					○	—	
	1,1,1,2-Tetrachloroethane	630-20-6	○					○	—	
	1,1,2,2-Tetrachloroethane	79-34-5	○					○	—	
45	Halogenated diphenylmethane	—	○					○	—	
	Monomethyl tetrachlorodiphenylmethane	76253-60-6	○					○	—	
	Monomethyl dichlorodiphenylmethane	81161-70-8	○					○	—	
	Monomethyl dibromodiphenylmethane	99688-47-8	○					○	—	
46	Antimony and its compounds (halogen-free-related substances)	—	○				○	○	For separate items required to be halogen-free(Sb:700ppm or less) Other	PRTR(1-31)
47	Polychlorinated terphenyls (PCT)	—	○					○	[Permissible concentration: under 5ppm]	
48	Polybrominated terphenyls (PBT)	—	○					○	[Permissible concentration: under 1000ppm]	
49	Pentachlorophenol	—	○					○		Chemical Substances Control Law, PRTR(1-404)
50	Fluoroacetic acid	—	○					○		
51	Organic phosphorous compounds #2	—	○					○		
52	Hexachlorobenzene	118-74-1	○					○		Chemical Substances Control Law
53	Yellow phosphorous	12185-10-3, 7723-14-0	○					○		
54	Red phosphorous	7723-14-0	○					○	For separate items required to be halogen-free(1000ppm or less)	
55	2,4,6-tri-tert-butylphenol	732-26-3	○					○		Chemical Substances Control Law
56	4-nitrodiphenyl and its salts	—	○					○		
57	Octamethyl pyrophosphoramide	152-16-9	○					○		
58	Bis(chloromethyl)ether	542-88-1	○					○		
59	Aluminum phosphate	20859-73-8	○					○		PRTR(1-456)
61	Radioactive substances	—	○					○		
62	Bismuth and its compounds	—	○					○		
63	Nickel and its compounds	—	○					○	○	Parts with direct and prolonged skin contact
								○	○	powdery
64	Selenium and its compounds	—						○		PRTR(1-242)
65	Magnesium	7439-95-4						○		
66	Copper and its compounds	—						○		PRTR(1-272)
67	Gold and its compounds	—						○		
68	Palladium and its compounds	—						○		
69	Silver and its compounds	—						○		PRTR(1-82)
70	Dioxins	—	○					○		PRTR(1-243)
71	Cyan compounds (Nitriles are excluded.)	—	○					○		Uses for gold plating uses are outside the scope of application (managed substances)
72	Formaldehyde (formalin)	50-00-0	○					○	○	Target: Primary materials[Permissible concentration: under 300ppm]
73	Chromium compounds (other than hexavalent chromium and metal alloys)	—						○		Safety and Health Law, Radiation-emitting regulated substances
74	Boron and its compounds	—						○		
75	Cobalt and its compounds (cobalt sulfate)	—						○		PRTR(1-405)
76	Tellurium and its compounds	—						○		PRTR(1-132)
77	Thallium and its compounds	—						○		
78	Vanadium and its compounds	—						○		
79	Barium and its compounds	—						○		PRTR(1-321)
80	Manganese and its compounds (potassium permanganate)	—						○		
81	Molybdenum and its compounds	—						○		PRTR(1-412)
82	Zinc and its compounds (water soluble)	—						○		PRTR(1-453)
83	Lithium and its compounds	—						○		PRTR(1-1)
84	Xylene	1330-20-7						○		
85	Toluene	108-88-3						○		PRTR(1-80)
86	Phenol (monomers)	108-95-2						○		PRTR(1-300)
87	Arsenic and its compounds (arsenic)	—	○					○	[Permissible concentration: under 50ppm] (All materials except semiconductor,LED and metal alloys)	Safety and Health Law, PRTR(1-322)
			○					○	[Permissible concentration: under 1000ppm] (Metal alloys)	
			○					○	[Permissible concentration: under 20ppm] (for preservation of water conductivity)	
			○					○	for semiconductor, LED use	
88	PFOS(Perfluorooctane Sulfonate) and its salts	—	○					○	[Permissible concentration] under 10ppm, Unintentional content	EU Directive (76/769/EEC), PRTR(1-396), Chemical Substances Control Law
	PFOSF (Perfluorooctane sulfonyl fluoride)	307-35-7	○						Parts under 1 μg/m2 Textiles, Coated products	
89	PFOA(Perfluorooctanoic acid) and individual salts and PFOA-related substances	—	○					○	[Permissible concentration] Unintentional content ·PFOA and its salts : under 25ppb ·Combination of one or multiple PFOA-related substances : under 1000ppb(1ppm)	EU Directive (76/769/EEC), REACH Annex XVII
90	Hexachloro-1,3-butadiene	87-68-3	○					○		Chemical Substances Control Law
91	2-(2H-Benzotriazolo-2-yl)-4,6-bis(1,1-dimethylethyl)-Phenol	3846-71-7	○					○		Chemical Substances Control Law, REACH SVHC
92	Crude rubber	—	○					○	Target: Primary materials (Intentional use prohibited)	
93	Sodium azide	26628-22-8	○					○		PRTR(1-11)
		7646-79-9	○					○	[Permissible concentration: under 1000ppm]	
			○					○	Humidity indicator used for desiccant (silicagel etc.)	
94	Cobalt(II) chloride		○					○	(Intentional use prohibited)	REACH SVHC
			○					○	Humidity indicator(The one that cobalt chloride was soaked into paper etc.)	
95	Perchlorates	7791-03-9,7601-89-0,7778-74-7,7790-98-9,10034-81-8	○					○	[Permissible concentration: total content, under 0.1ppm Parts]	USA California State Law
96	2-Methoxyethanol	109-86-4	○					○	[Permissible concentration: under 1000ppm]	GADSL classification P, PRTR(1-58), REACH SVHC
97	N-Nitrosodimethylamine	62-75-9	○					○		GADSL classification P
98	Pentachlorobenzene	608-93-5	○					○		GADSL classification P, Chemical Substances Control Law
99	Tetrachlorobenzene	12408-10-5, 84713-12-2, 634-66-2, 634-90-2,95-94-3	○					○		GADSL classification P
100	PAHs (polycyclic aromatic hydrocarbons) #4	—	○					○	Target: Skin-contact use	German equipment and product safety law
101	Dimethylfumarate	624-49-7	○					○	[Permissible concentration: under 0.1ppm, unintentional content]	2009/251/EC (Decision of committee)
102	Bisphenol A	80-05-7	○					○	[Permissible concentration: under 50ppm]	PRTR(1-11)
103	N,N'-Ditolyl-p-phenylenediamine	27417-40-9	○					○		PRTR(1-37)
104	Ethanolamine	141-43-5						○		Chemical Substances Control Law
105	Ferric chloride	7705-08-0						○		PRTR(1-20)
106	1,4-Dioxane	123-91-1						○		PRTR(1-71)
107	N,N-Dimethylformamide	68-12-2	○					○	[Permissible concentration: under 1000ppm]	PRTR(1-150)
108	Hydroquinone	123-31-9						○		PRTR(1-232), REACH SVHC
109	n-Hexane	110-54-3	○					○	Used at time of manufacture	PRTR(1-336)
110	Water-soluble salts of peroxodisulfuric acid	—						○		PRTR(1-392)
111	Tantalum	7440-25-7						○		PRTR(1-395)
112	Gallium	7440-55-3						○		Ammonium persulfate, Sodium persulfate, other rare metal
113	Nonylphenol, Nonylphenol ethoxylates	—	○					○	[Intentional use prohibited]	rare metal
114	Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethyl-5-phenyl-2-pentene	68921-45-9	○					○	Target: Primary materials[Permissible concentration: under 0.1wt%]	PRTR(1-320) , REACH Annex XVII
115	Methyl-phenol compounds	95-48-7, 106-44-5, 108-39-4, 1319-77-3	○					○	[Permissible concentration:Total content under 10ppm]	GADSL classification D/P Antioxidant
116	REACH Candidate List of SVHCs		○					○	[Permissible concentration: under 1000ppm] Applies to all materials unless preapproved by MEKTEC	Canadian Environmental Protection Act,1999
117	Bisphenol F, Bisphenol S	620-92-8, 2467-02-9, 1333-16-0, 80-09-1						○	100ppm	Refer to Appendix 3, annex 1
118	n-Propyl Bromide(nPB)	106-94-5						○	100ppm	
119	Aminoethyl ethanolamine	111-41-1						○		
120	Indium Phosphide	22398-80-7						○		
121	Per- and Polyfluoroalkyl Substances(PFAS)	—						○		Substances that contain one or more perfluoroalkyl moieties, -CnF2n+1

No.	Name of substance	Chemical substance no.	Management category							Concentration and application limits	Remarks	
			Prohibited substances	Abolished substances	○: Relevant △: Relevant at			Managed substances	Specific managed substances			Customer's requirement
							Deadline					
122	Perfluorocarboxylic acids with 9 to 14 carbon atoms (C9 to C14 PFCA)s and their salts and C9 to C14 PFCA-related substances	—	○							○ *C9-C14 PFCA (including salts), less than 25ppb. *In the case of a combination of 1 or more C9-C14 PFCA-related substances, the total concentration is less than 260ppb. "		
123	Methoxychlor	72-43-5	○							○ [Prohibited intended use]	Class I Specified Chemical Substances under the Chemical Substances Control Law	
124	Declorane plus (dodecachlorodecahydrodimethanodibenzocyclooctene)	13560-89-9	○							○ [Prohibited intended use]	Class I Specified Chemical Substances under the Chemical Substances Control Law	
125	UV-328	25973-55-1	○							○ [Prohibited intended use]	Class I Specified Chemical Substances under the Chemical Substances Control Law	
126	PFHxS-related compounds*5	—	○							○ The weight content of PFHxS or its salts should be 0.0000025% or less. *The total weight concentration of PFHxS-related compounds should be 0.0001% or less.	EU POPs Regulation	

*1 Azo compounds and aromatic amines : EU Directive (76/769/EEC)19th Amendment

No.	Azo compounds and aromatic amines No.40	CAS No.	P	A	y	m	M	SM	C		
40-1)	4-Aminoazobenzene	60-09-3	○						○	Part in contact with the human body of a product made for sustained human contact that has azo pigments that can generate the specific amines on the separate table when decomposed [Permissible concentration: total content, under 30ppm]	REACH SVHC
40-2)	o-Anisidine	90-04-0	○						○		REACH SVHC, PRTR(1-17)
40-3)	2-Naphthylamine	91-59-8	○						○		
40-4)	3,3'-Dichlorobenzidine	91-94-1	○						○		PRTR(1-180)
40-5)	Biphenyl-4-ylamine	92-67-1	○						○		REACH SVHC
40-6)	Benzidine	92-87-5	○						○		
40-7)	o-Toluidine	95-53-4	○						○		REACH SVHC, PRTR(1-299)
40-8)	4-Chloro-o-toluidine	95-69-2	○						○		
40-9)	2,4-Toluenediamine	95-80-7	○						○		REACH SVHC
40-10)	o-Aminoazotoluene	97-56-3	○						○		REACH SVHC
40-11)	5-Nitro-o-toluidine	99-55-8	○						○		
40-12)	3,3'-Dichloro-4,4'-diaminodiphenylmethane	101-14-4	○					○	○		REACH SVHC, PRTR(1-160)
40-13)	4,4'-Methylenedianiline	101-77-9	○						○		REACH SVHC, PRTR(1-446)
40-14)	4,4'-Diaminodiphenylether	101-80-4	○						○		REACH SVHC, PRTR(1-143)
40-15)	p-Chloroaniline	106-47-8	○						○		PRTR(1-89)
40-16)	3,3'-Dimethoxybenzidine	119-90-4	○						○		
40-17)	3,3'-Dimethylbenzidine	119-93-7	○						○		PRTR(1-231)
40-18)	2-Methoxy-5-methylaniline	120-71-8	○						○		REACH SVHC, PRTR(1-451)
40-19)	2,4,5-Trimethylaniline	137-17-7	○						○		
40-20)	4,4'-Thiodianiline	139-65-1	○						○		
40-21)	4-Methoxy-m-phenylenediamine	615-05-4	○						○		PRTR(1-142)
40-22)	4,4'-Methylenedi-o-toluidine	838-88-0	○						○		REACH SVHC
40-23)	2,4-Dimethylaniline	95-68-1	○						○		PRTR(1-214)
40-24)	2,6-Dimethylaniline	87-62-7	○						○		PRTR(1-215)

*2 Organic phosphorous compounds

No.	Organic phosphorous compounds No.51	CAS No.	P	A	y	m	M	SM	C		
51-1)	Diethyl paranitrophenyl thiophosphate	56-38-2	○						○	[Intentional use prohibited]	Parathion
51-2)	Diethyl (diethyl amide-1-chlorocrotonyl) phosphate	13171-21-6	○						○	[Intentional use prohibited]	Phosphamidon
51-3)	Dimethylethylmercapto ethylthiophosphate	8022-00-2	○						○	[Intentional use prohibited]	Methyl demeton
51-4)	Diethyl paranitrophenyl thiophosphate	298-00-0	○						○	[Intentional use prohibited]	Methyl parathion
51-5)	O-ethyl =O-4-nitrophenyl=phenyl phosphorothioate	2104-64-5	○						○	[Intentional use prohibited]	EPN PRTR(1-48)
51-6)	Tetraethyl pyrophosphate	107-49-3	○						○	[Intentional use prohibited]	TEPP
51-7)	Tris(2,3-dibromopropyl) phosphate	126-72-7	○						○	[Intentional use prohibited]	flame retardant, EU Directive (76/769/EEC)
51-8)	Tris (1-aziridinyl) phosphineoxide	545-55-1	○						○	[Intentional use prohibited]	flame retardant, EU Directive (76/769/EEC)
51-9)	Ammonium polyphosphate	68333-79-9	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-10)	Tris(2-butoxyethyl) phosphate	78-51-3	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-11)	Triphenyl phosphate	115-86-6	○						○	[Permissible concentration: 1000ppm or less]	flame retardant, PRTR(1-461)
51-12)	Dimethyl methylphosphonate	756-79-6	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-13)	Diethyl ethylphosphonate	78-38-6	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-14)	Resorcinol bis(diphenyl phosphate)	57583-54-7	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-15)	Cyclic phosphonate ester	61840-22-0	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-16)	[[Bis (2hydroxyethyl) amino] methyl]- diethyl ester	2781-11-5	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-17)	Diphenyl cresyl phosphate	26444-49-5	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-18)	Octyldiphenyl phosphate	115-88-8	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-19)	Tris(2-ethylhexyl)phosphate	78-42-2	○						○	[Permissible concentration: 1000ppm or less]	flame retardant, PRTR(1-458)
51-20)	Trioctyl phosphate	1806-54-8	○						○	[Permissible concentration: 1000ppm or less]	flame retardant
51-21)	Triethyl phosphate	78-40-0	○						○	[Permissible concentration: 1000ppm or less]	flame retardant, PRTR(1-459)
51-22)	Tris(2-chloroethyl) Phosphate (TCEP)	115-96-8	○						○	[Permissible concentration: 1000ppm or less, unintentional content]	flame retardant, REACH SVHC, US (state of Vermont) legislation
51-23)	Tris(2-chloro-1-methylethyl) phosphate [TCPP]	13674-84-5	○						○	[Permissible concentration: 1000ppm or less, unintentional content]	(US (state of Vermont) legislation)
51-24)	Tris(1,3-dichloro-2-propyl) phosphate [TDCPP]	13674-87-8	○						○	[Permissible concentration: 1000ppm or less, unintentional content]	(US (state of Vermont) legislation)
51-25)	Tris (isopropylphenyl) phosphate PIP (3:1)	68937-41-7	○						○	[Intentional use prohibited]	US TSCA PBT Regulations
51-26)	Other organic phosphorus compound (Including other Additive Phosphorous Flame Retardants)	-						○	○		

*3 Phthalates

No.	Phthalates No.60	CAS No.	P	A	y	m	M	SM	C		
60-1)	Dibutyl phthalate	84-74-2	○				○		○	For primary product materials and packaging, substances of which use is prohibited (total content: 0.1wt% or less). For subsidiary materials, management substances.	REACH SVHC, RoSH2, PRTR(1-354) Denmark Phthalate regulation
60-2)	Di(2-ethylhexyl) phthalate	117-81-7	○				○		○		REACH SVHC, RoSH2, PRTR(1-355) Denmark Phthalate regulation
60-3)	Butyl benzyl phthalate	85-68-7	○				○		○		REACH SVHC, RoSH2, PRTR(1-356) Denmark Phthalate regulation
60-4)	Diisononyl phthalate	28553-12-0, 68515-48-0	○				○		○		
60-5)	Diisodecyl phthalate	26761-40-0, 68515-49-1	○				○		○		
60-6)	Di-n-octyl phthalate	117-84-0	○				○		○		
60-7)	Dibutyl phthalate (2-methoxyethyl)	117-82-8	○				○		○		REACH SVHC
60-8)	Di-n-hexyl phthalate	84-75-3	○				○		○		REACH SVHC
60-9)	Diisobutyl phthalate	84-69-5	○				○		○		REACH SVHC, RoSH2, Denmark Phthalate regulation
60-10)	Diisoheptyl phthalate	71888-89-6	○				○		○		REACH SVHC
60-11)	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	○				○		○		REACH SVHC
60-12)	Diethyl phthalate	84-66-2	○				○		○		
60-13)	Dimethyl phthalate	131-11-3	○				○		○		
60-14)	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5 68648-93-1	○				○		○		REACH SVHC
60-15)	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	○				○		○		REACH SVHC
60-16)	Diisopentylphthalate	605-50-5	○				○		○		REACH SVHC
60-17)	Di-n-pentyl phthalate	131-18-0	○				○		○		REACH SVHC
60-18)	N-pentyl-isopentylphthalate	776297-69-9	○				○		○		REACH SVHC
60-19)	Diundecyl phthalate	3648-20-2	○				○		○		
60-20)	Dicyclohexyl phthalate	84-61-7	○				○		○		REACH SVHC
60-21)	Diisohexyl phthalate	68515-50-4	○				○		○		REACH SVHC

*4PAHs(polycyclic aromatic hydrocarbons)

No.	PAHs No.100	CAS No.	P	A	y	m	M	SM	C		
100-1)	Naphthalene	91-20-3	○						○	[Permissible concentration: under 10ppm for each. Total of 27 items is	PRTR(1-302)
100-2)	Acenaphthene	83-32-9	○						○		PRTR(1-15)
100-3)	Acenaphthylene	208-96-8	○						○		
100-4)	Fluorene	86-73-7	○						○		
100-5)	Phenanthrene	85-01-8	○						○		
100-6)	Anthracene	120-12-7	○						○		REACH SVHC, PRTR(1-32)
100-7)	Fluoranthene	206-44-0	○						○		
100-8)	Pyrene	129-00-0	○						○		
100-9)	Crysene	218-01-9	○						○		REACH SVHC
100-10)	Benz[a]anthracene	56-55-3	○						○		REACH SVHC
100-11)	Benzo[b]fluoranthene	205-99-2	○						○		
100-12)	Benzo[k]fluoranthene	207-08-9	○						○		

No.	Name of substance	Chemical substance no.	Management category					Concentration and application limits	Remarks	
			Prohibited substances	Abolished substances	Deadline	Managed substances	Specific managed substances			Customer's requirement
100-13)	Indeno-[1,2,3-cd]-pyrene	193-39-5	○					○	[Permissible concentration limit (ppm) for each item is under 10ppm] (Skin-contact use) REACH SVHC REACH SVHC	
100-14)	Dibenzo[a,h]anthracene	53-70-3	○					○		
100-15)	Benzo[g,h,i]perylene	191-24-2	○					○		
100-16)	Benzo[a]pyrene	50-32-8	○					○		
100-17)	Benzo[j]fluoranthene	205-82-3	○					○		
100-18)	Benzo[e]pyrene	192-97-2	○					○		
100-19)	Benzo[r,s,t]pentaphene	189-55-9	○					○		
100-20)	Dibenz[a,h]acridine	226-36-8	○					○		
100-21)	Dibenz[a,j]acridine	224-42-0	○					○		
100-22)	Dibenzo[a,e]fluoranthene	5385-75-1	○					○		
100-23)	Dibenzo[a,e]pyrene	192-65-4	○					○		
100-24)	Dibenzo[a,h]pyrene	189-64-0	○					○		
100-25)	Dibenzo[a,l]pyrene	191-30-0	○					○		
100-26)	7H-Dibenzo[c,g]carbazole	194-59-2	○					○		
100-27)	5-Methylchrysene	3697-24-3	○					○		

IEC 61249-2-21

No.	PAHs No.100	CAS No.	P	A	y	m	M	S	C	REASON FOR LISTING	REASON FOR LISTING
126-1	Perfluorohexane -1 sulfonate	355-46-4	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-2	Ammonium = Tridecafluorohexane -1 sulfonate	68259-08-5	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-3	Tridecafluorohexane -1 sulfonate and 2,2 '-iminodiethanol (1:1)	70225-16-0	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-4	Potassium =1,1,2,2,3,3,4,4,5,5,6,6,6 -Tridecafluorohexane -1 sulfonate	3871-99-6	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-5	[4-[[4- (diethylamino) phenyl] [4- (ethylamino) -1 naphthyl] methylidene] cyclohexa -2, 5 diene -1 ylidene] (diethyl) ammonium tridecafluorohexane -1 sulfonate	1310480-24-0	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-6	[4-[[4- (dimethylamino) phenyl] [4- (ethylamino) -1 naphthyl] methylidene] cyclohexa -2, 5 diene -1 ylidene] (dimethyl) ammonium tridecafluorohexane -1 sulfonate	1310480-27-3	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-7	4- [[4-anilino -1 naphthyl] [4- (dimethylamino) phenyl] methylidene] cyclohexa -2, 5 diene -1 ylidene] (dimethyl) ammonium tridecafluorohexane -1 sulfonate	1310480-28-4	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-8	β -Cyclodextrin and tridecafluorohexane -1 sulfonate (1:1)	1329995-45-0	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-9	γ -Cyclodextrin = mono (1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 6-Tridecafluorohexane -1 sulfonate)	1329995-69-8	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-10	Triphenylsulfonium = tridecafluorohexane -1 sulfonate	144116-10-9	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-11	1- (Carboxymethyl -4 (2-[4-[4-(2, 2-diphenylvinyl) phenyl] -1,2, 3, 3a, 4, 8 b-hexahydrocyclopenta [b] indole -7 -yl] vinyl) quinoline -1 -ium = tridecafluorohexane -1 sulfonate	1462414-59-0	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-12	Diphenyliodonium = tridecafluorohexane -1 sulfonate	153443-35-7	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-13	Tetramethylammonium = tridecafluorohexane -1 sulfonate	189274-31-5	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-14	2-Methylpropane -2 amine and tridecafluorohexane -1 sulfonic acid (1:1)	202189-84-2	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-15	Bis (4-tert-butylphenyl) iodonium = tridecafluorohexane -1 sulfonate	213740-81-9	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-16	Phenyl (di-p-tolyl) sulfonium = tridecafluorohexane -1 sulfonate	341548-85-4	○						○	[Prohibited intentional use]	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-17	Scandium = tris (tridecafluorohexane -1 sulfonate)	350836-93-0	○						○	•Fabric treated to provide water or oil repellency	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-18	Neodymium = Tris (tridecafluorohexane -1 sulfonate)	41184-65-0	○						○	•Etching agent used for metal processing	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-19	Yttrium = Tris (tridecafluorohexane -1 sulfonate)	41242-12-0	○						○	•Etching agent used for semiconductor manufacturing	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-20	S, S, S ' , S ' -tetraphenyl [sulfanediylbis (4, 1-phenylene)] bis (sulfonium) = bis (tridecafluorohexane -1 sulfonate)	421555-73-9	○						○	•Surface treatment agent for plating and its preparation additive	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-21	Bis (4 tert-pentylphenyl) iodonium tridecafluoro -1 hexanesulfonate	421555-74-0	○						○	•Antireflection agent used for semiconductor manufacturing	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-22	Tris (4 tert-butylphenyl) sulfonium = tridecafluorohexane -1 sulfonate	425670-70-8	○						○	•Resist for semiconductor	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-23	Lithium =1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6 -tridecafluorohexane -1 sulfonate	55120-77-9	○						○	•Water repellent, oil repellent and fiber protectant	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-24	Zinc = bis (tridecafluorohexane -1 sulfonate)	70136-72-0	○						○	•Fire extinguisher, fire extinguisher extinguishing agent and foam extinguishing agent	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-25	A compound of tridecafluorohexane -1 sulfonate and triethylamine (1:1)	72033-41-1	○						○	•Clothing treated to provide water or oil repellent performance	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-26	Sodium =1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 6 -tridecafluorohexane -1 sulfonate	82382-12-5	○						○	•Floor rugs treated to provide water or oil repellent performance	Class I Specified Chemical Substances under the Chemical Substances Control Law
126-27	Bis (tert-butylphenyl) iodonium = tridecafluorohexane -1 sulfonate	866621-50-3	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-28	Diphenyl (p-tolyl) sulfonium = tridecafluorohexane -1 sulfonate	910606-39-2	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-29	[4- (methacryloyloxy) phenyl] (diphenyl) sulfonium = tridecafluorohexane -1 sulfonate	911027-68-4	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-30	2-ethyl -2 adamantyl methacrylate 3 -hydroxy -1 adamantyl methacrylate [4- (methacryloyloxy) phenyl] (diphenyl) sulfonium = tridecafluorohexane -1 sulfonate 2-oxoxolane -3 yl methacrylate polymer	911027-69-5	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-31	Cesium = tridecafluorohexane -1 sulfonate	92011-17-1	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-32	19- (4-tert-butylphenyl) -4a, 6, 7, 9, 10,12,13,19 a-octahydrodibenzo [k, n] [1,4, 7, 10,13] tetraoxathiacyclopentadecine -19-ium = tridecafluorohexane -1 sulfonate	928049-42-7	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-33	Pyrrolidine and tridecafluorohexane -1 sulfonate (1:1)	1187817-57-7	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-34	Tetraethylammonium = tridecafluorohexane -1 sulfonate	108427-55-0	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-35	Tetrabutylammonium = tridecafluorohexane -1 sulfonate	108427-54-9	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-36	Benzyl (triphenyl) phosphonium = tridecafluorohexane -1 sulfonate	1000597-52-3	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law
126-37	Gallium = tris (tridecafluorohexane -1 sulfonate)	341035-71-0	○						○		Class I Specified Chemical Substances under the Chemical Substances Control Law