

Guideline on Green Procurement

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Nippon Antenna Co., Ltd.

REVISION RECORD

Rev. Date	Description	Prepared	Approved
2006/10/1	Initial Issued.	Y. Gohbara	M. Nagahori
2007/6/28	Nippon Antenna Environmental Policy changed.	Y. Gohbara	C. Fukuda
2011/9/30	“Prohibited/Controlled Substances List”, “Breakdown List of Prohibited/Controlled Substances” changed.	Y. Gohbara	S. Yanagi

I . Nippon Antenna Environmental Policy

Comprised of an “Environmental Activities Policy” outlining the company’s basic philosophy and six “Guidelines for Behavior” that clarify the above, this is Nippon Antenna’s standpoint on environmental preservation activities.

◆Environmental Activities Policy

The managerial creed for Nippon Antenna Co., Ltd. is based on “Harmony” ”Efficiency” and “Challenge”. In terms of environmental activities, this means valuing partnerships with local communities, using resources efficiently, and endeavoring to undertake environmental activities in a transparent, honest and trustworthy manner.

◆Guidelines for Behavior

- 1) To provide environmental friendly products by reducing environmental loads generated through the lifecycle of Nippon Antenna products, from development to disposal.
- 2) To continuously improve environmental preservation activities and reduce environmental loads through waste reduction.
- 3) To comply with the applicable legal requirements, with the customer requirements, and with the other requirements to which we subscribe related to our environmental aspects.
- 4) To set environmental objectives and targets for executing Nippon Antenna’s “Environmental Policy” and conduct annual reviews.
- 5) To distribute a copy of Nippon Antenna’s “Environmental Policy” to each of the company’s employees and coworkers, and promote environmental activity participation through enlightening activities.
- 6) To disclose Nippon Antenna’s “Environmental Policy” to the public.

June 28, 2007

President & Representative Director: Yutaka Takizawa

II. Requests to Our Business Partners

In order to reduce environmental loads, we request our partners for the following four actions based on Nippon Antenna's "Environmental Policy".

1. Establishment of the environmental management system

We request our business partners to establish the environmental management systems to promote environmental protection and continuous improvement.

Such systems must be equivalent to, or based on, that described in ISO14001.

We recommend our partners to have their established environmental management systems accredited by the third parties.

We would like our partners to understand that we may visit them to check their environmental protection activity conditions as necessary.

2. Idle reduction/Proper disposal of waste

① We request the visitors to make idle reduction within Nippon Antenna's sites for prevention of air pollution and global warming.

② Nippon Antenna promotes activities for achieving "zero emission". Accordingly, we request our suppliers to remove from our premises and dispose properly of the remains of the delivered materials (wastes).

3. Nonuse of Prohibited Chemical Substances

Nippon Antenna declares our customers that we do not use prohibited substances (refer to Appendix "Prohibited/Controlled Substances List").

Accordingly, Nippon Antenna's products shall not contain the prohibited substances within them.

In order to comply with our declaration, we request our business partners to ensure:

① not to contain the prohibited substances in the components or materials supplied to Nippon Antenna, and

② not to use the prohibited substances in the production lines for Nippon Antenna.

NOTE) Nippon Antenna's "Prohibited/Controlled Substances List" consists of the chemical substances regulated under the domestic laws in Japan, and under European ELV and RoHS.

II . Requests to Our Business Partners (cont.)

4. Submission of Documents

We request our business partners to survey whether their supplying components/materials contain the prohibited substances (refer to the Appendix “Prohibited/Controlled Substances List” and “Breakdown List of Prohibited/Controlled Substances”) and the weight if contained, and then to submit the below-mentioned documents:

No.	What to be submitted	When to be submitted
1	Chemical Substances Survey Sheet (Appendix)	1) When supplying a component made of a new material. 2) Prior to change of a material or a supplier. 3) When Nippon Antenna requests.
2	Analysis data <ul style="list-style-type: none"> • issued by material makers. • attach to Chemical Substances Survey Sheet. 	
3	Pledge for Disuse of Prohibited Substances <ul style="list-style-type: none"> • use either of the Appendix or an optional sheet 	
4	Chemical Substances Control Check sheet (Appendix)	
		<ul style="list-style-type: none"> • Ongoing partners : When Nippon Antenna requests. • New partners : Prior to start of business.

NOTE) Nippon Antenna may specify another prohibited substance additional to the “Prohibited/Controlled Substances List” in accordance with our customer’s requirements. In that case, Nippon Antenna will request an additional survey and submission of documents.

Appendix. Prohibited/Controlled Substances List

Appendix. Breakdown List of Prohibited/Controlled Substances

Nippon Antenna Prohibited/Controlled Substances List

Class	No.	Substance Group	Threshold	Remarks
Asbestos Azo dyes Ozone depleting substances	1	Asbestos	Intentionally use prohibited.	
	2	Azocolourants and azodyes which form certain aromatic amines	Intentionally use prohibited.	
	3	Ozone depleting substances	Intentionally use prohibited.	
	4	Radioactive substances	Intentionally use prohibited.	
Metals and metal compounds	5	Tributyl tin oxide (TBT0)	Intentionally use prohibited.	REACH Regulation
	6	Tri-substituted organostannic compounds	Intentionally use prohibited.	
	7	Cadmium/Cadmium compounds	Intentionally use prohibited and 1000ppm. Exceptions: Paints, inks, Intentionally use prohibited and 75ppm.	
			Packaging materials *1	Packaging of products for EU
	8	Chromium VI compounds	Intentionally use prohibited and 1000ppm. Exceptions: Packaging materials *1	EU-D 2002/95/EC EU-D 2000/53/EC Packaging of products for EU
	9	Lead/lead compounds	Intentionally use prohibited and 1000ppm. Exceptions: Packaging materials *1	EU-D 2002/95/EC EU-D 2000/53/EC Packaging of products for EU
			Copper compounds	up to 4wt% (for easy cut)
			Lead in iron	up to 0.35wt% (for easy cut)
Aluminium compounds			up to 0.4wt% (for easy cut)	
Lead in glass/ceramic electronic parts			Exempted application	
Lead in high-melting point solder used for electrical connection (85% or more lead in weight)			Exempted application	
10	Mercury/mercury compounds	Intentionally use prohibited and 1000ppm. Exceptions: Packaging materials *1	EU-D 2002/95/EC EU-D 2000/53/EC Others	
Halogenated organic compounds	11	Polybrominated Biphenyls (PBBs)	Intentionally use prohibited and 1000ppm.	EU-D 2002/95/EC
	12	Polybrominated Diphenylethers (PBDEs)	Intentionally use prohibited and 1000ppm.	EU-D 2000/53/EC
	13	Polychlorinated Biphenyls (PCBs)	Intentionally use prohibited.	
	14	Polychlorinated Naphthalenes (more than 3 chlorine atoms)	Intentionally use prohibited.	
	15	Shortchain Chlorinated Paraffins	Intentionally use prohibited.	REACH Regulation
	16	Beryllium oxide (BeO)	Controlled Substance	
	17	Brominated Flame Retardants (other than PBBs, PBDEs or HBCDD)	Controlled Substance	
	18	Cobalt Dichloride (CoCl ₂)		
	19	Diarsenic Pentoxide	Controlled Substance (Intentionally use prohibited for REACH Regulation)	REACH Regulation
	20	Diarsenic Trioxide		
	21	Dibutyltin compounds (DBT)	Intentionally use prohibited.	
	22	Dioctyltin compounds (DOT)	Intentionally use prohibited.	
	23	Dimethyl Fumarate	Intentionally use prohibited.	
	24	Fluorinated Greenhouse Gases (PFC, SF ₆ , HFC)	Controlled Substance	
	25	Hexabromocyclododecane (HBCDD)	Controlled Substance (Intentionally use prohibited for REACH Regulation)	REACH Regulation
	26	Lead sulfochromate yellow		
	27	Nickel	Controlled Substance	
	28	Perchlorate	Controlled Substance	
	29	Perfluorooctane Sulfonates (PFOS)	Controlled Substance	
	30	Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)	Controlled Substance	
	31	Selected Phthalates Group 1 (BBP, DBP, DEHP)	Controlled Substance (Intentionally use prohibited for REACH Regulation)	REACH Regulation
	32	Diisobutyl Phthalate (DIBP)		
	33	Selected Phthalates Group 2 (DIDP, DINP, DNOP)	Controlled Substance	
	34	Polychlorinated Terphenyls (PCTs)	Controlled Substance	
	35	Polyvinyl Chloride (PVC)	Controlled Substance	
	36	Refractory Ceramic Fibers, Aluminosilicate		
	37	Refractory Ceramic Fibers, Zirconia Aluminosilicate	Controlled Substance (Intentionally use prohibited for REACH Regulation)	REACH Regulation
	38	Tris(2-chloroethyl) Phosphate (TCEP)		
Volatile Organic Compounds (VOC)	39	Acetaldehyde	Controlled Substance	
	40	Fenobucarb	Controlled Substance	
	41	Formaldehyde	Controlled Substance	
	42	Toluene	Controlled Substance	
	43	Xylene	Controlled Substance	
	44	Paradichlorobenzene	Controlled Substance	
	45	Ethylbenzene	Controlled Substance	
	46	Styrene	Controlled Substance	
	47	Chlorpyrifos	Controlled Substance	
	48	Tetradecane	Controlled Substance	
	49	Di-n-Butyl Phthalate (DBP)	Controlled Substance (Intentionally use prohibited for REACH Regulation)	
	50	Di(2-Ethylhexyl) Phthalate (DEHP)		
	51	Diazinon	Controlled Substance	

*1 Intentionally use banned of Lead, Cadmium, Mercury and Hexavalent Chromium for packaging materials (e.g. resins, ink, paints).

Besides, the total concentration of the above-mentioned four substances in material shall not exceed 100ppm.

note 1. Notwithstanding foregoing, particular requirements shall prevail.

note 2. This list is subject to change in future according to legislation, or else.

note 3. Controlled Substances shall be noticed prior to supply.

Japan Ministry of
HLW Guideline (VOC)

1. Asbestos	CAS Numbers
Asbestos	1332-21-4
Actinolite	77536-66-4
Amosite (Grunerite)	12172-73-5
Anthophyllite	77536-67-5
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Tremolite	77536-68-6

2. Azocolourants and azodyes which form certain aromatic amines	CAS Numbers
Biphenyl-4-ylamine	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
2-naphthylamine	91-59-8
o-aminoazotoluene	97-56-3
5-nitro-o-toluidine	99-55-8
4-chloroaniline	106-47-8
4-methoxy-m-phenylenediamine	615-05-4
4,4'-methylenedianiline	101-77-9
3,3'-dichlorobenzidine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7
4,4'-methylenedi-o-toluidine	838-88-0
6-methoxy-m-toluidine	120-71-8
4,4'-methylene-bis (2-chloroaniline)	101-14-4
4,4'-oxydianiline	101-80-4
4,4'-thiodianiline	139-65-1
o-toluidine	95-53-4
4-methyl-m-phenylenediamine	95-80-7
2,4,5-trimethylaniline	137-17-7
o-anisidine	90-04-0
4-amino azobenzene	60-09-3

3. Ozone Depleting Substances	CAS Numbers
Trichlorofluoromethane (CFC-11)	75-69-4
Dichlorodifluoromethane (CFC-12)	75-71-8
Chlorotrifluoromethane (CFC-13)	75-72-9
Pentachlorofluoroethane (CFC-111)	354-56-3
Tetrachlorodifluoroethane (CFC-112)	76-12-0
1,1,2,2-Tetrachloro-1,2-difluoroethane (CFC-112)	76-12-0
1,1,1,2-Tetrachloro-2,2-difluoroethane (CFC-112a)	76-11-9
Trichlorotrifluoroethane (CFC-113)	76-13-1,
1,1,2-Trichloro-1,2,2trifluoroethane (CFC-113)	76-13-1
1,1,1-Trichloro-2,2,2trifluoroethane (CFC-113a)	354-58-5
Dichlorotetrafluoroethane (CFC-114)	76-14-2
Monochloropentafluoroethane (CFC-115)	76-15-3
Heptachlorofluoropropane (CFC-211)	422-78-6
1,1,1,2,2,3,3-Heptachloro-3-fluoropropane (CFC-211aa)	135401-87-5
1,1,1,2,3,3,3-Heptachloro-2-fluoropropane (CFC-211ba)	422-78-6
Hexachlorodifluoropropane (CFC-212)	422-81-1
Pentachlorotrifluoropropane (CFC-213)	3182-26-1
Tetrachlorotetrafluoropropane (CFC-214)	2354-06-5
1,2,2,3-Tetrachloro-1,1,3,3-tetrafluoropropane (CFC-214aa)	134237-31-3
1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoropropane (CFC-214cb)	29255-31-0
	2268-46-4
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3. Ozone Depleting Substances (cont.)	CAS Numbers
Trichloropentafluoropropane (CFC-215)	1599-41-3
1, 2, 2-Trichloropentafluoropropane (CFC-215aa)	1599-41-3
1, 2, 3-Trichloropentafluoropropane (CFC-215ba)	76-17-5
1, 1, 2-Trichloropentafluoropropane (CFC-215bb)	-
1, 1, 3-Trichloropentafluoropropane (CFC-215ca)	-
1, 1, 1-Trichloropentafluoropropane (CFC-215cb)	4259-43-2
Dichlorohexafluoropropane (CFC-216)	661-97-2
Chloroheptafluoropropane (CFC-217)	422-86-6
Bromochloromethane (Halon-1011)	74-97-5
Dibromodifluoromethane (Halon-1202)	75-61-6
Bromochlorodifluoromethane (Halon-1211)	353-59-3
Bromotrifluoromethane (Halon-1301)	75-63-8
Dibromotetrafluoroethane (Halon-2402)	124-73-2
Tetrachloromethane (carbon tetrachloride)	56-23-5
1, 1, 1-Trichloroethane (methylchloroform)	71-55-6
Bromomethane (methyl bromide)	74-83-9
Bromoethane (ethyl bromide)	74-96-4
1-Bromopropane (n-propyl bromide)	106-94-5
Trifluoroiodomethane (trifluoromethyl iodide)	2314-97-8
Chloromethane (methyl chloride)	74-87-3
Dibromofluoromethane (HBFC-21 B2)	1868-53-7
Bromodifluoromethane (HBFC-22 B1)	1511-62-2
Bromofluoromethane (HBFC-31 B1)	373-52-4
Tetrabromofluoroethane (HBFC-121 B4)	306-80-9
Tribromodifluoroethane (HBFC-122 B3)	-
Dibromotrifluoroethane (HBFC-123 B2)	354-04-1
Bromotetrafluoroethane (HBFC-124 B1)	124-72-1
Tribromofluoroethane (HBFC-131 B3)	-
Dibromodifluoroethane (HBFC-132 B2)	75-82-1
Bromotrifluoroethane (HBFC-133 B1)	421-06-7
Dibromofluoroethane (HBFC-141 B2)	358-97-4
Bromodifluoroethane (HBFC-142 B1)	420-47-3
Bromofluoroethane (HBFC-151 B1)	762-49-2
Hexabromofluoropropane (HBFC-221 B6)	-
Pentabromodifluoropropane (HBFC-222 B5)	-
Tetrabromotrifluoropropane (HBFC-223 B4)	-
Tribromotetrafluoropropane (HBFC-224 B3)	-
Dibromopentafluoropropane (HBFC-225 B2)	431-78-7
Bromohexafluoropropane (HBFC-226 B1)	2252-78-0
Pentabromofluoropropane (HBFC-231 B5)	-
Tetrabromodifluoropropane (HBFC-232 B4)	-
Tribromotrifluoropropane (HBFC-233 B3)	-
Dibromotetrafluoropropane (HBFC-234 B2)	-
Bromopentafluoropropane (HBFC-235 B1)	460-88-8
Tetrabromofluoropropane (HBFC-241 B4)	-
Tribromodifluoropropane (HBFC-242 B3)	70192-80-2
Dibromotrifluoropropane (HBFC-243 B2)	431-21-0
Bromotetrafluoropropane (HBFC-244 B1)	679-84-5
Tribromofluoropropane (HBFC-251 B3)	75372-14-4
Dibromodifluoropropane (HBFC-252 B2)	460-25-3
Bromotrifluoropropane (HBFC-253 B1)	421-46-5
Dibromofluoropropane (HBFC-261 B2)	51584-26-0
Bromodifluoropropane (HBFC-262 B1)	-
Bromofluoropropane (HBFC-271 B1)	1871-72-3
Dichlorodifluoromethane (HCFC-21)	75-43-4
Chlorodifluoromethane (HCFC-22)	75-45-6
Chlorofluoromethane (HCFC-31)	593-70-4
Tetrachlorofluoroethane (HCFC-121)	134237-32-4
1, 1, 2, 2-Tetrachloro-1-fluoroethane (HCFC-121)	354-14-3
1, 1, 1, 2-Tetrachloro-2-fluoroethane (HCFC-121a)	354-11-0

3. Ozone Depleting Substances (cont.)	CAS Numbers
Trichlorodifluoroethane (HCFC-122) 1, 2, 2-Trichloro-1, 1-difluoroethane (HCFC-122) 1, 1, 2-Trichloro-1, 2-difluoroethane (HCFC-122a) 1, 1, 1-Trichloro-2, 2-difluoroethane (HCFC-122b)	41834-16-6 354-21-2 354-15-4 354-12-1
Dichlorotrifluoroethane (HCFC-123) 1, 1-Dichloro-2, 2, 2-trifluoroethane (HCFC-123) 1, 2-Dichloro-1, 1, 2-trifluoroethane (HCFC-123a) 1, 1-Dichloro-1, 2, 2-trifluoroethane (HCFC-123b)	34077-87-7 306-83-2 354-23-4 90454-18-5 812-04-4
Chlorotetrafluoroethane (HCFC-124) 2-Chloro-1, 1, 1, 2-tetrafluoroethane (HCFC-124) 1-Chloro-1, 1, 2, 2-tetrafluoroethane (HCFC-124a)	63938-10-3 2837-89-0 354-25-6
Trichlorofluoroethane (HCFC-131) 1, 1, 2-Trichloro-2-fluoroethane (HCFC-131) 1, 1, 2-Trichloro-1-fluoroethane (HCFC131a) 1, 1, 1-Trichloro-2-fluoroethane (HCFC-131b)	27154-33-2; (134237-34-6) 359-28-4 811-95-0 2366-36-1
Dichlorodifluoroethane (HCFC-132) 1, 2-Dichloro-1, 2-difluoroethane (HCFC-132) 1, 1-Dichloro-2, 2-difluoroethane (HCFC-132a) 1, 2-Dichloro-1, 1-difluoroethane (HCFC-132b) 1, 1-Dichloro-1, 2-difluoroethane (HCFC-132c)	25915-78-0 431-06-1 471-43-2 1649-08-7 1842-05-3
Chlorotrifluoroethane (HCFC-133) 1-Chloro-1, 2, 2-trifluoroethane (HCFC-133) 2-Chloro-1, 1, 1-trifluoroethane (HCFC-133a) 1-Chloro-1, 1, 2-trifluoroethane (HCFC-133b)	1330-45-6 431-07-2 1330-45-6 75-88-7 421-04-5
Dichlorofluoroethane (HCFC-141) 1, 2-Dichloro-1-fluoroethane (HCFC-141) 1, 1-Dichloro-2-fluoroethane (HCFC-141a) 1, 1-Dichloro-1-fluoroethane (HCFC-141b)	1717-00-6; (25167-88-8) 430-57-9 430-53-5 1717-00-6
Chlorodifluoroethane (HCFC-142) 2-Chloro-1, 1-difluoroethane (HCFC-142) 1-Chloro-1, 1-difluoroethane (HCFC-142b) 1-Chloro-1, 2-difluoroethane (HCFC142a)	25497-29-4 338-65-8 75-68-3 338-64-7
Chlorofluoroethane (HCFC-151) 1-Chloro-2-fluoroethane (HCFC-151) 1-Chloro-1-fluoroethane (HCFC-151a)	110587-14-9 762-50-5 1615-75-4
Hexachlorofluoropropane (HCFC-221) 1, 1, 1, 2, 2, 3-Hexachloro-3-fluoropropane (HCFC-221ab)	134237-35-7 29470-94-8 422-26-4
Pentachlorodifluoropropane (HCFC-222) 1, 1, 1, 3, 3-Pentachloro-2, 2-difluoropropane (HCFC-222ca) 1, 2, 2, 3, 3-Pentachloro-1, 1-difluoropropane (HCFC-222aa)	134237-36-8 422-49-1 422-30-0
Tetrachlorotrifluoropropane (HCFC-223) 1, 1, 3, 3-Tetrachloro-1, 2, 2-trifluoropropane (HCFC-223ca) 1, 1, 1, 3-Tetrachloro-2, 2, 3-trifluoropropane (HCFC-223cb)	134237-37-9 422-52-6 422-50-4
Trichlorotetrafluoropropane (HCFC-224) 1, 3, 3-Trichloro-1, 1, 2, 2-tetrafluoropropane (HCFC-224ca) 1, 1, 3-Trichloro-1, 2, 2, 3-tetrafluoropropane (HCFC-224cb) 1, 1, 1-Trichloro-2, 2, 3, 3-tetrafluoropropane (HCFC-224cc)	134237-38-0 422-54-8 422-53-7 422-51-7

3. Ozone Depleting Substances (cont.)	CAS Numbers
Dichloropentafluoropropane (HCFC-225)	127564-92-5
2, 2-Dichloro-1, 1, 1, 3, 3-pentafluoropropane (HCFC-225aa)	128903-21-9
2, 3-Dichloro-1, 1, 1, 2, 3-pentafluoropropane (HCFC-225ba)	422-48-0
1, 2-Dichloro-1, 1, 2, 3, 3-pentafluoropropane (HCFC-225bb)	422-44-6
3, 3-Dichloro-1, 1, 1, 2, 2-pentafluoropropane (HCFC-225ca)	422-56-0
1, 3-Dichloro-1, 1, 2, 2, 3-pentafluoropropane (HCFC-225cb)	507-55-1
1, 1-Dichloro-1, 2, 2, 3, 3-pentafluoropropane (HCFC-225cc)	13474-88-9
1, 2-Dichloro-1, 1, 3, 3, 3-pentafluoropropane (HCFC-225da)	431-86-7
1, 3-Dichloro-1, 1, 2, 3, 3-pentafluoropropane (HCFC-225ea)	136013-79-1
1, 1-Dichloro-1, 2, 3, 3, 3-pentafluoropropane (HCFC-225eb)	111512-56-2
Chlorohexafluoropropane (HCFC-226)	134308-72-8
2-Chloro-1, 1, 1, 3, 3, 3-hexafluoropropane (HCFC-226da)	431-87-8
Pentachlorofluoropropane (HCFC-231)	134190-48-0
1, 1, 1, 2, 3-Pentachloro-2-fluoropropane (HCFC-231bb)	421-94-3
Tetrachlorodifluoropropane (HCFC-232)	134237-39-1
1, 1, 1, 3-Tetrachloro-3, 3-difluoropropane (HCFC232fc)	460-89-9
Trichlorotrifluoropropane (HCFC-233)	134237-40-4
1, 1, 1-Trichloro-3, 3, 3-trifluoropropane (HCFC-233fb)	7125-83-9
Dichlorotetrafluoropropane (HCFC-234)	127564-83-4
1, 2-Dichloro-1, 2, 3, 3-tetrafluoropropane (HCFC-234db)	425-94-5
Chloropentafluoropropane (HCFC-235)	134237-41-5
1-Chloro-1, 1, 3, 3, 3-pentafluoropropane (HCFC-235fa)	460-92-4
Tetrachlorofluoropropane (HCFC-241)	134190-49-1
1, 1, 2, 3-Tetrachloro-1-fluoropropane (HCFC-241db)	666-27-3
Trichlorodifluoropropane (HCFC-242)	134237-42-6
1, 3, 3-Trichloro-1, 1-difluoropropane (HCFC-242fa)	460-63-9
Dichlorotrifluoropropane (HCFC-243)	134237-43-7
1, 1-Dichloro-1, 2, 2-trifluoropropane (HCFC-243cc)	7125-99-7
2, 3-Dichloro-1, 1, 1-trifluoropropane (HCFC-243db)	338-75-0
3, 3-Dichloro-1, 1, 1-trifluoropropane (HCFC-243fa)	460-69-5
Chlorotetrafluoropropane (HCFC-244)	134190-50-4
3-Chloro-1, 1, 2, 2-tetrafluoropropane (HCFC-244ca)	679-85-6
1-Chloro-1, 1, 2, 2-tetrafluoropropane (HCFC-244cc)	421-75-0
Trichlorofluoropropane (HCFC-251)	134190-51-5
1, 1, 3-Trichloro-1-fluoropropane (HCFC-251fb)	818-99-5
1, 1, 2-Trichloro-1-fluoropropane (HCFC-251dc)	421-41-0
Dichlorodifluoropropane (HCFC-252)	134190-52-6
1, 3-Dichloro-1, 1-difluoropropane (HCFC-252fb)	819-00-1
Chlorotrifluoropropane (HCFC-253)	134237-44-8
3-Chloro-1, 1, 1-trifluoropropane (HCFC-253fb)	460-35-5
Dichlorofluoropropane (HCFC-261)	134237-45-9
1, 1-Dichloro-1-fluoropropane (HCFC-261fc)	7799-56-6
1, 2-Dichloro-2-fluoropropane (HCFC-261ba)	420-97-3
Chlorodifluoropropane (HCFC-262)	134190-53-7
1-Chloro-2, 2-difluoropropane (HCFC-262ca)	420-99-5
2-Chloro-1, 3-difluoropropane (HCFC-262da)	102738-79-4
1-Chloro-1, 1-difluoropropane (HCFC-262fc)	421-02-3
Chlorofluoropropane (HCFC-271)	134190-54-8
2-Chloro-2-fluoropropane (HCFC-271ba)	420-44-0
1-Chloro-1-fluoropropane (HCFC-271fb)	430-55-7

4. Radioactive Substances (Radioactive Isotope)	CAS Numbers
Uranium-238	7440-61-1
Radon	10043-92-2
Americium-241	14596-10-2
Thorium-232	7440-29-1
Cesium-137	10045-97-3
Strontium-90	10098-97-2
Other radioactive substances	-

6. Tri-substituted Organostannic Compounds	CAS Numbers
Triphenyltin-N,N-dimethyldithiocarbamate	1803-12-9
Triphenyltinfluoride	379-52-2
Triphenyltinacetate	900-95-8
Triphenyltinchloride	639-58-7
Triphenyltinhydroxide	76-87-9
Triphenyltin fattyacid((9~11) salt)	18380-71-7 18380-72-8 47672-31-1 94850-90-5
Triphenyltinchloroacetate	7094-94-2
Tributyltinmethacrylate	2155-70-6
Bis(tributyltin)fumalate	6454-35-9
Tributyltinfluoride	1983-10-4
Bis(tributyltin)2,3-dibromosuccinate	31732-71-5
Tributyltinacetate	56-36-0
Tributyltinlaurate	3090-36-6
Bis(tributyltin)phthalate	4782-29-0
Copolymer of alkyl(c=8)acrylate, methyl methacrylate and tributyltin methacrylate	67772-01-4
Tributyltinsulfamate	6517-25-5
Bis(tributyltin)maleate	14275-57-1
Tributyltinchloride	1461-22-9 7342-38-3
Tributyltin cyclopentane carbonate=mixture	85409-17-2
Tributyltin=1, 2, 3, 4, 4a, 4b, 5, 6, 10, 10a-decahydro-7-isopropyl-1, 4a-dimethyl-1-phenanthrenecarboxylatemix	26239-64-5
Other tri-substituted organostannic compounds	-

7. Cadmium/Cadmium Compounds	CAS Numbers
Cadmium	7440-43-9
Cadmium oxide	1306-19-0
Cadmium sulfide	1306-23-6
Cadmium chloride	10108-64-2
Cadmium sulfate	10124-36-4
Other cadmium compounds	-

8. Chromium VI Compounds	CAS Numbers
Chromium(VI)oxide	1333-82-0
Barium chromate	10294-40-3
Calcium chromate	13765-19-0
Lead (II)chromate	7758-97-6
Lead chromate molybdate sulphate red	12656-85-8
Lead sulfochromate yellow	1344-37-2
Sodium chromate	7775-11-3
Sodium dichromate	10588-01-9
Strontium chromate	7789-06-2
Potassium dichromate	7778-50-9
Potassium chromate	7789-00-6
Zinc chromate	13530-65-9
Other chromium VI compounds	-

9. Lead/lead Compounds	CAS Numbers
Lead	7439-92-1
Lead (II) sulfate	7446-14-2
Lead (II) carbonate	598-63-0
Lead (II) chromate	7758-97-6
Lead chromate molybdate sulphate red	12656-85-8
Lead hydrocarbonate	1319-46-6
Lead acetate	301-04-2
Lead (II) acetate, trihydrate	6080-56-4
Lead phosphate	7446-27-7
Lead selenide	12069-00-0
Lead (IV) oxide	1309-60-0
Lead (II, IV) oxide	1314-41-6
Lead (II) sulfide	1314-87-0
Lead (II) oxide	1317-36-8
Lead (II) carbonate basic	1319-46-6
Lead hydroxidcarbonate	1344-36-1
Lead (II) phosphate	7446-27-7
Lead sulfochromate yellow	1344-37-2
Lead (II) titanate	12060-00-3
Lead sulfate, sulphuric acid, lead salt	15739-80-7
Lead sulphate, tribasic	12202-17-4
Lead stearate	1072-35-1
Other lead compounds	-

10. Mercury/Mercury Compounds	CAS Numbers
Mercury	7439-97-6
Mercuric chloride	33631-63-9
Mercury(II)chloride	7487-94-7
Mercuric sulfate	7783-35-9
Mercuric nitrate	10045-94-0
Mercuric(II)oxide	21908-53-2
Mercuric sulfide	1344-48-5
Other mercury compounds	-

11. Polybrominated Biphenyls (PBBs)	CAS Numbers
Polybrominated Biphenyls	59536-65-1
Dibromobiphenyl	92-86-4
2-Bromobiphenyl	2052-07-5
3-Bromobiphenyl	2113-57-7
4-Bromobiphenyl	92-66-0
Tribromobiphenyl	59080-34-1
Tetrabromobiphenyl	40088-45-7
Pentabromobiphenyl	56307-79-0
Hexabromobiphenyl	59080-40-9
Hexabromo-1,1-biphenyl	36355-01-8
Firemaster FF-1	67774-32-7
Heptabromobiphenyl	35194-78-6
Octabromobiphenyl	61288-13-9
Nonabromobiphenyl	27753-52-2
Decabromobiphenyl	13654-09-6

12. Polybrominated Diphenyl Ethers (PBDEs)	CAS Numbers
Bromodiphenyl ether	101-55-3
Dibromodiphenyl ether	2050-47-7
Tribromodiphenyl ether	49690-94-0
Tetrabromodiphenyl ether	40088-47-9
Pentabromodiphenyl ether (note : Commercially available PeBDPO is a complex reaction mixture containing a variety of brominated diphenyloxides.)	32534-81-9 (CAS number used for commercial grades of PeBDPO)
Hexabromodiphenyl ether	36483-60-0
Heptabromodiphenyl ether	68928-80-3
Octabromodiphenyl ether	32536-52-0
Nonabromodiphenyl ether	63936-56-1
Decabromodiphenyl ether	1163-19-5

13. Polychlorinated Biphenyls (PCBs) and specific substitutes	CAS Numbers
Polychlorinated Biphenyls (all isomers and congeners)	1336-36-3
Monomethyl-tetrachloro-diphenyl methane (Ugilec 141)	76253-60-6
Monomethyl-dichloro-diphenyl methane (Ugilec 121, Ugilec 21)	81161-70-8
Monomethyl-dibromo-diphenyl methane (DBBT)	99688-47-8

14. Polychlorinated Naphthalenes	CAS Numbers
Polychlorinated Naphthalenes	70776-03-3
Other polychlorinated Naphthalenes	-

15. Short Chain Chlorinated Paraffins (SCCPs)	CAS Numbers
Alkanes, C10-13, chloro	85535-84-8
Alkanes, C10-12, chloro	108171-26-2
Alkanes, C12-13, chloro	71011-12-6
Alkanes, chloro	61788-76-9
Other Short Chain Chlorinated Paraffins	-

17. Brominated Flame Retardants (other than PBBs, PBDEs or HBCDD)	CAS Numbers
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR (14) [Aliphatic/alicyclic brominated compounds]	-
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR (15) [Aliphatic/alicyclic brominated compounds in combination with antimony compounds]	-
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR (16) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls]	-
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR (17) [Aromatic brominated compounds excluding brominated diphenyl ether and biphenyls in combination with antimony compounds]	-
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR (22) [Aliphatic/alicyclic chlorinated and brominated compounds]	-
Brominated flame retardant which comes under notation of ISO 1043-4 code number FR (42) [Brominated organic phosphorus compounds]	-
Poly(2,6-dibromo-phenylene oxide)	69882-11-7
Tetra-decabromo-diphenoxy-benzene	58965-66-5
1,2-Bis(2,4,6-tribromo-phenoxy)ethane	37853-59-1
3,5,3',5'-Tetrabromo-bisphenol A (TBBA)	79-94-7
TBBA, unspecified	30496-13-0
TBBA-epichlorhydrin oligomer	40039-93-8
TBBA-TBBA-diglycidyl-ether oligomer	70682-74-5
TBBA carbonate oligomer	28906-13-0

17. Brominated Flame Retardants (other than PBBs, PBDEs or HBCDD)	CAS Numbers
TBBA carbonate oligomer, phenoxy end capped	94334-64-2
TBBA carbonate oligomer, 2,4,6-tribromo-phenol terminated	71342-77-3
TBBA-bisphenol A-phosgene polymer	32844-27-2
Brominated epoxy resin end-capped with tribromophenol	139638-58-7
Brominated epoxy resin end-capped with tribromophenol	135229-48-0
TBBA-(2,3-dibromo-propyl-ether)	21850-44-2
TBBA-bis-(2-hydroxy-ethyl-ether)	4162-45-2
TBBA-bis-(allyl-ether)	25327-89-3
TBBA-dimethyl-ether	37853-61-5
Tetrabromo-bisphenol S	39635-79-5
TBBS-bis-(2,3-dibromo-propyl-ether)	42757-55-1
2,4-Dibromo-phenol	615-58-7
2,4,6-Tribromo-phenol	118-79-6
Pentabromo-phenol	608-71-9
2,4,6-Tribromo-phenyl-allyl-ether	3278-89-5
Tribromo-phenyl-allyl-ether, unspecified	26762-91-4
Bis(methyl)tetrabromo-phthalate	55481-60-2
Bis(2-ethylhexyl)tetrabromo-phthalate	26040-51-7
2-Hydroxy-propyl-2-(2-hydroxy-ethoxy)-ethyl-TBP	20566-35-2
TBPA, glycol-and propylene-oxide esters	75790-69-1
N,N'-Ethylene-bis-(tetrabromo-phthalimide)	32588-76-4
Ethylene-bis(5,6-dibromo-norbornane-2,3-dicarboximide)	52907-07-0
2,3-Dibromo-2-butene-1,4-diol	3234-02-4
Dibromo-neopentyl-glycol	3296-90-0
Dibromo-propanol	96-13-9
Tribromo-neopentyl-alcohol	36483-57-5
Poly tribromo-styrene	57137-10-7
Tribromo-styrene	61368-34-1
Dibromo-styrene grafted PP	171091-06-8
Poly-dibromo-styrene	31780-26-4
Bromo-/Chloro-paraffins	68955-41-9
Bromo-/Chloro-alpha-olefin	82600-56-4
Vinylbromide	593-60-2
Tris-(2,3-dibromo-propyl)-isocyanurate	52434-90-9
Tris-(2,4-dibromo-phenyl)phosphate	49690-63-3
Tris(tribromo-neopentyl)phosphate	19186-97-1
Chlorinated and brominated phosphate ester	125997-20-8
Pentabromo-toluene	87-83-2
Pentabromo-benzyl bromide	38521-51-6
1,3-Butadiene homopolymer, brominated	68441-46-3
Pentabromo-benzyl-acrylate, monomer	59447-55-1
Pentabromo-benzyl-acrylate, polymer	59447-57-3
Decabromo-diphenyl-ethane	84852-53-9
Tribromo-bisphenyl-maleinimide	59789-51-4
Tetrabromo-cyclo-octane	31454-48-5
1,2-Dibromo-4-(1,2-dibromo-methyl)-cyclo-hexane	3322-93-8
Tetrabromo phthalic acid Na salt	25357-79-3
Tetrabromo phthalic-anhydride	632-79-1
Octabromo-1,1,3-trimethyl-1-phenylindane (FR-1808)	155613-93-7
Other Brominated Flame Retardants	-

21. Dibutyltin Compounds (DBT)	CAS Numbers
Dibutyltin oxide	818-08-6
Dibutyltin diacetate	1067-33-0
Dibutyltin dilaurate	77-58-7
Dibutyltin maleate	78-04-6
Other dibutyltin compounds	-

22. Dioctyltin Compounds (DOT)	CAS Numbers
Dioctyltin oxide	870-08-6
Dioctyltin dilaurate	3648-18-8
Other dioctyltin compounds	-

24. Fluorinated Greenhouse Gases	CAS Numbers
Tetrafluoromethane (Carbon tetrafluoride, PFC-14)	75-73-0
Hexafluoroethane (PFC-116)	76-16-4
Octafluoropropane (PFC-218)	76-19-7
Decafluorobutane (PFC-31-10)	355-25-9
Dodecafluoropentane (PFC-41-12)	678-26-2
Tetradecafluorohexane (PFC-51-14)	355-42-0
Octafluorocyclobutane (PFC-c318)	115-25-3
Sulfur Hexafluoride (SF6)	2551-62-4
Trifluoromethane (HFC-23)	75-46-7
Difluoromethane (HFC-32)	75-10-5
Methyl fluoride (HFC-41)	593-53-3
2H, 3H-Decafluoropentane (HFC-43-10mee)	138495-42-8
Pentafluoroethane (HFC-125)	354-33-6
1, 1, 2, 2-Tetrafluoroethane (HFC-134)	359-35-3
1, 1, 1, 2-Tetrafluoroethane (HFC-134a)	811-97-2
1, 1-Difluoroethane (HFC-152a)	75-37-6
1, 1, 2-Trifluoroethane (HFC-143)	430-66-0
1, 1, 1-Trifluoroethane (HFC-143a)	420-46-2
2H-Heptafluoropropane (HFC-227ea)	431-89-0
1, 1, 1, 2, 2, 3-Hexafluoropropane (HFC-236cb)	677-56-5
1, 1, 1, 2, 3, 3-Hexafluoropropane (HFC-236ea)	431-63-0
1, 1, 1, 3, 3, 3-Hexafluoropropane (HFC-236fa)	690-39-1
1, 1, 2, 2, 3-Pentafluoropropane (HFC-245ca)	679-86-7
1, 1, 1, 3, 3-Pentafluoropropane (HFC-245fa)	460-73-1
1, 1, 1, 3, 3-Pentafluorobutane (HFC-365mfc)	406-58-6

25. Hexabromocyclododecane (HBCDD)	CAS Numbers
Hexabromocyclododecane (HBCDD)	25637-99-4 and 3194-55-6
α -hexabromocyclododecane	134237-50-6
β -hexabromocyclododecane	134237-51-7
γ -hexabromocyclododecane	134237-52-8

28. Perchlorate Compounds	CAS Numbers
Lithium perchlorate	7791-03-9
Other perchlorate compounds	-

29. PFOS Compounds	CAS Numbers
Perfluorooctane Sulfonates (PFOS) C ₈ F ₁₇ SO ₂ X, where X = OR, NR or other derivative	-

31. Selected Phthalates Group 1 (BBP, DBP, DEHP)	CAS Numbers
Butylbenzyl phthalate(BBP)	85-68-7
Dibutyl phthalate(DBP)	84-74-2
Di(2-ethylhexyl) phthalate(DEHP)	117-81-7

33. Selected Phthalates Group2 (DIDP, DINP, DNOP)	CAS Numbers
Diisodecyl phthalate(DIDP)	26761-40-0 68515-49-1
Diisononyl phthalate(DINP)	28553-12-0 68515-48-0
Di-n-octyl phthalate(DNOP)	117-84-0

34. Polychlorinated Terphenyls (PCTs)	CAS Numbers
Polychlorinated Terphenyls (all isomers and congeners)	61788-33-8

35. Polyvinyl Chloride (PVC)	CAS Numbers
Polyvinyl Chloride (PVC)	9002-86-2
Other Polyvinyl Chlorides	-