

## List of Controlled Environmental Substances rev.1

Note The list of controlled environmental substances in Table 1 conforms to IEC 62474, which is a standard for the electrical/electronic industry.

The control levels are abbreviated as follows: "Prohibited: Prohibited substance," "Complete: Substance targeted to be eliminated completely," "Controlled: Controlled substance"

Refer to IEC 62474 Reference Substances for the exemplified substances. URL: <http://std.iec.ch/iec62474/iec62474.nsf/welcome?openpage>

**Table 1-1 Prohibited substance and Substance targeted to be eliminated completely**

If a substance is found to be contained, please report it regardless of the threshold value.

Substance /substance group	Control levels	Application	Threshold Level	Examples of Use	Dates of applicability	Key Legal Regulations
Cadmium/cadmium compounds	Prohibited	All uses (except for ANNEX III of Directive 2011/65/EU, batteries and packaging materials)	0.01% by weight (100 ppm) of cadmium in homogeneous materials	Pigment, anti-corrosion surface treatment, optical glass, stabilizer, plating, fluorescent, electrode, solder, electric contact, contact point, zinc plating	Immediately	EU RoHS
Cadmium/cadmium compounds	Prohibited	Batteries <sup>(4)</sup>	0.001% by weight (10 ppm) of cadmium in battery	NiCd accumulators	Immediately	EU Battery Directive
Cadmium/cadmium compounds	Prohibited	Packaging materials	The sum of lead, cadmium, mercury and hexavalent chromium is 0.01wt% (100ppm) of packaging materials	Packaging materials	Immediately	EU Packaging Regulations
Chromium VI compounds	Prohibited	All uses (except for ANNEX III of Directive 2011/65/EU and packaging materials)	0.1 % by weight (1,000 ppm) of chromium (VI) in homogeneous materials	Pigment, paint, ink, catalyst, plating, anti-corrosion surface treatment, dye	Immediately	EU RoHS
Chromium VI compounds	Prohibited	Packaging materials	The sum of lead, cadmium, mercury and hexavalent chromium is 0.01wt% (100ppm) of packaging materials	Packaging materials	Immediately	EU Packaging Regulations
Lead/lead compounds	Prohibited	All uses (except for ANNEX III of Directive 2011/65/EU, batteries and packaging materials)	0.1 % by weight (1,000 ppm) of lead in homogeneous materials	Rubber hardener, pigment, paint, lubricant, plastic stabilizer, free-machining alloy, free-cutting steels, optical materials, X-ray shielding in CRT glass, solder material, curing agent, vulcanizing agent, ferroelectrics, plating, metal	Immediately	EU RoHS
Lead/lead compounds	Prohibited	Batteries <sup>(4)</sup>	0.004% by weight (40 ppm) of lead in battery	Zinc carbon batteries, alkaline button cells	Immediately	EU Battery Directive
Lead/lead compounds	Prohibited	Packaging materials	The sum of lead, cadmium, mercury and hexavalent chromium is 0.01wt% (100ppm) of packaging materials	Packaging materials	Immediately	EU Packaging Regulations
Lead/lead compounds	Prohibited	Cables/cords with thermoset or thermoplastic coatings	0.03% by weight (300 ppm) of surface coating	Pigment, paint, stabilizer, colorant	Immediately	US/CA Proposition 65 Case law
Mercury/mercury compounds	Prohibited	All uses (except for ANNEX III of Directive 2011/65/EU, batteries and packaging materials)	Intentionally added or 0.1% (1,000 ppm) of mercury in homogeneous material	fluorescent bulb, contact point material, pigment, anti-corrosion, switches, antibacterial treatment	Immediately	EU RoHS
Mercury/mercury compounds	Prohibited	Batteries <sup>(4)</sup>	Intentionally added or 0.0001% by weight (1 ppm) of mercury in the battery	Silver-oxide button cells, alkaline batteries, zinc carbon batteries,	Immediately	EU Battery Directive
Mercury/mercury compounds	Prohibited	Packaging materials	The sum of lead, cadmium, mercury and hexavalent chromium is 0.01wt% (100ppm) of packaging materials	Packaging materials	Immediately	EU Packaging Regulations
Polybrominated biphenyls (PBBs)	Prohibited	All	0.1 % by weight (1,000 ppm) in homogeneous material	Flame retardant	Immediately	EU RoHS
Polybrominated Diphenyl ethers (PBDEs)	Prohibited	All	Intentionally added or 0.1 % by weight (1,000 ppm) in homogeneous material	Flame retardant	Immediately	EU RoHS
Bis (2-ethylhexyl) phthalate (DEHP)	Prohibited	All	0.1 % by weight (1,000 ppm) in a homogeneous material	plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Immediately	EU RoHS
Dibutyl phthalate (DBP)	Prohibited	All	0.1 % by weight (1,000 ppm) in a homogeneous material	plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Immediately	EU RoHS

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Benzyl butyl phthalate (BBP)	Prohibited	All	0.1 % by weight (1,000 ppm) in a homogeneous material	plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Immediately	EU RoHS
Diisobutyl phthalate (DIBP)	Prohibited	All	0.1 % by weight (1,000 ppm) in a homogeneous material	plasticizer, dye, pigment, paint, ink, adhesive, lubricant	Immediately	EU RoHS
Tributyl Tin Oxide (TBTO)	Prohibited	All	Intentionally added or 0.1 % by weight (1,000 ppm) of the article	Antiseptic, antifungal agent, paint, pigment, antistaining, refrigerant, foaming agent, extinguishant, solvent cleaner	Immediately	Japan Chemical Substance Control Law Stockholm Convention
Dibutyltin (DBT) compounds	Prohibited	All	0.1 % by weight (1,000 ppm) of tin in a part	(a) One-component and two-component room temperature vulcanization sealants (RTV-1 and RTV-s sealants) (b) One-component and two-component room temperature vulcanization adhesives (RTV-a and RTV-2 adhesives) (c) Catalysts for paints or coating agents (d) Stabilizers in PVC used for coating of fabrics intended for outdoor applications (e) Additives of soft polyvinyl chloride (PVC) profiles whether by themselves or coextruded with hard PVC	Immediately	EU REACH Annex17
Dioctyltin (DOT) compounds	Prohibited	(a) textile and leather articles intended to come into contact with the skin, (b) childcare articles (c) two-component room temperature vulcanization molding kits (RTV-2 molding kits)	0.1 % by weight (1,000 ppm) of tin in a part	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	Immediately	EU REACH Annex17
Tri-substituted organostannic compounds	Prohibited	All	Intentionally added or 0.1% by weight (1,000 ppm) of tin in a part	Stabilizer, antioxidant, antibacterial and antifungal agents, antifoulant, antiseptic paint, pigment, antistaining	Immediately	EU REACH Annex17
Polychlorinated Biphenyls (PCBs) and specific substitutes	Prohibited	All	Intentionally added	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution; Plasticizers, flame retardants, dielectric sealants	Immediately	Japan Chemical Substance Control Law Stockholm Convention
Polychlorinated naphthalenes (more than 1chlorine atoms)	Prohibited	All	Intentionally added	Lubricant, paint, stabilizer (electric, characteristic, flame-resistant, water-resistant) insulator, flame retardant	Immediately	Japan Chemical Substance Control Law Stockholm Convention
Polychlorinated normal paraffin (limited those in which the carbon number is 10 through 13 and the content of chlorine is more than 48% of the total weight)	Prohibited	All	Intentionally added or 0.1 % by weight (1,000 ppm) of article	plasticizer for PVC, flame retardant, pigment, dyes, colorants	Immediately	Japan Chemical Substance Control Law Stockholm Convention

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**Table 1-1 Prohibited substance and Substance targeted to be eliminated completely**

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Substance /substance group	Control levels	Application	Threshold Level	Examples of Use	Dates of applicability	Key Legal Regulations
Fluorinated greenhouse gases (PFC, SF6, HFC)	Prohibited	All	Intentionally added	Refrigerants, blowing agents, extinguishing agents, cleaning agents, insulating media, caustic gas	Immediately	EU Reg. No. 842/2006;
Hexabromocyclododecane (HBCDD) and all major diastereoisomers	Prohibited	All	Intentionally added	Flame retardant mainly used for expanded polystyrene and some types of fiber	Immediately	Japan Chemical Substance Control Law Stockholm Convention
Perfluorooctane sulfonate (PFOS)	Prohibited	All applications other than below-mirror ·Photoresist or anti coating for photolithography process ·Photo coating applied to films, documents, or printing plates	Intentionally added or 0.1% by weight (1,000 ppm) in material (5)	antistatic agent for films and plastics	Immediately	Japan Chemical Substance Control Law Stockholm Convention
Polychlorinated Terphenyls (PCTs)	Prohibited	All	0.005% by weight (50 ppm) in material	insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution; Plasticizers, flame retardants, coatings for electrical wire and cable, dielectric sealants	Immediately	EU REACH Annex17
Asbestos	Prohibited	All	Intentionally added	Insulator, filler, pigment, paint, talc	Immediately	EU REACH Annex17
Ozone Depleting Substances	Prohibited	All	Intentionally added	refrigerant, foaming agent, extinguishant, solvent cleaner	Immediately	Montreal Protocol
Radioactive substances	Prohibited	All	Intentionally added (6)	Optical properties (thorium), measuring devices, gauges, detector	Immediately	Japan Nuclear Reactor Regulation Law
Penol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)	Prohibited	All	Intentionally added	Adhesives, paints, printing inks, plastics, inked ribbons, putty, caulking or sealing fillers	Immediately	Japan Chemical Substance Control Law
Dimethyl fumarate	Prohibited	All	0.00001% by weight (0.1 ppm) in a material (5)	Biocide, mold treatment of electronic leather seats, including recliners, massage chairs	Immediately	EU REACH Annex17
Perfluorooctanoic acid (PFOA) and PFOA salts and PFOA-related substances	Prohibited	All	Intentionally added or in a concentration equal to or above 25 ppb of PFOA including its salts or 1 000 ppb of one or a combination of PFOA-related substances.	Fluoropolymer and fluoroelastomer production, surfactants in the semiconductor industry	Immediately	Japan Chemical Substance Control Law Stockholm Convention
Hexachlorobenzene(HCB)	Prohibited	All	Intentionally added	Raw material for manufacturing herbicide PCP, rubber smelting accelerator, flame retardant for clothing, plasticizer for polyvinyl chloride, etc.	Immediately	Japan Chemical Substance Control Law
Pentachlorophenol and its individual salts and esters	Prohibited	All	Intentionally added	Pesticides, fungicides, etc.	Immediately	Japan Chemical Substance Control Law
1,1'-Oxybis (pentabromobenzene) (Decabromodiphenyl ether)	Prohibited	All	Intentionally added	Flame retardant	Immediately	Japan Chemical Substance Control Law

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C9-C14 PFCAs, their salts and C9-C14 PFCA-related substances	Prohibited	All	0.0000025 mass% for the sum of C9-C14 PFCAs and their salts in Article 0.000026 mass% for the sum of C9-C14 PFCA-related substances in Article	Greases, textiles and other coated products, and emulsifiers used for manufacturing the Fluoropolymers and fluoroelastomers	Immediately	EU REACH Annex17
Perfluorohexane sulfonic acid(PFHxS)	Prohibited	All	Intentionally added	Fire-fighting foams, Metal plating, Textiles, carpets, leather and upholstery, Polishing agents and cleaning/washing agents, Manufacture of semiconductors, Flame retardant and Impregnation/proofing	Immediately	Stockholm Convention
Phenol, Isopropylated Phosphate (3:1) (PIP (3:1))	Prohibited	All	No threshold	Flame retardant, an anti-wear additive, lubricating oils, lubricants and greases, various industrial coatings, adhesives, sealantsor	Immediately	USA TSCA
UV-328 (benzotriazole ultraviolet stabilizers (BUVSs) )	Prohibited	All	Intentionally added	UV absorber	Immediately	Stockholm Convention
Dechlorane Plus and its syn-isomer and anti-isomer	Prohibited	All	Intentionally added	Flame-retardant : Insulation tape	Immediately	Stockholm Convention

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**Table 1-2 Controlled**

Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

Substance/Substance group	CAS No.	Examples of Use	Key Legal Regulations
Beryllium Oxide (BeO)	1304-56-9	Ceramics	DIGITALEUROPE <sup>(1)</sup> /CECED/AeA <sup>(2)</sup> / EERA guidance
Nickel <sup>(7)</sup>	7440-02-0	Stainless steel, plating; example application for prolonged skin contact is an ear bud (headphone), mobile phone	EU REACH Annex17
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	—	Flame retardant for housing, connectors, package molding sealing	USA JS709
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	—	Flame retardant	IEC 61249-2-21 IPC-4101
Chlorinated flame retardants	—	Flame retardant for housing, connectors, package molding sealing	USA JS709
Chlorinated flame retardants	—	Flame retardant	IEC 61249-2-21 IPC-4101
Polyvinyl chloride (PVC) & PVC Copolymers	9002-86-2 other	Insulator, chemical resistance, transparency, sheath material	USA JS709
Perchlorates	—	Coin cell batteries	USA California Perchlorate Contamination Prevention Act of 2003 AB 826
Azocolourants and azodyes which form certain aromatic amines	—	Pigment, dyes, colorants	EU REACH Annex17
Formaldehyde	—	Stereo cabinets, kiosk enclosures	USA TSCA Formaldehyde Emissions from Composite Wood Products Regulations
Polycyclic aromatic hydrocarbon (PAH)	—	Rubber or plastic components	EU REACH Annex17
Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)	—	Flame retardants used in plastics, resins, fabrics, and textiles	USA State of Vermont Act. 85
LCPFCA Long-chain perfluorocarboxylic acids(PFCA)	—	Fluoropolymers	Stockholm Convention
Medium-chain chlorinated paraffins (Carbon chain lengths in the range C14–17 and chlorination levels at or exceeding 45 per cent chlorine by weight) MCCP	—	Flame-retardant resin raw materials	Stockholm Convention

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**Table 1-3 Controlled (SVHC)**

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
 Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
1	4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	2008/10/28
2	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	201-329-4	81-15-2	2008/10/28
3	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	2008/10/28
4	Anthracene	204-371-1	120-12-7	2008/10/28
5	Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	2008/10/28
6	Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7	2008/10/28
7	Bis(tributyltin) oxide (TBTO)	200-268-0	56-35-9	2008/10/28
8	Cobalt dichloride	231-589-4	7646-79-9	2008/10/28
9	Diarsenic pentaoxide	215-116-9	1303-28-2	2008/10/28
10	Diarsenic trioxide	215-481-4	1327-53-3	2008/10/28
11	Dibutyl phthalate (DBP)	201-557-4	84-74-2	2008/10/28
12	Hexabromocyclododecane (HBCDD)	-	-	2008/10/28
12	1,2,5,6,9,10-hexabromocyclododecane	221-695-9	3194-55-6	2008/10/28
12	Hexabromocyclododecane	247-148-4	25637-99-4	2008/10/28
12	alpha-hexabromocyclododecane	-	134237-50-6	2008/10/28
12	beta-hexabromocyclododecane	-	134237-51-7	2008/10/28
12	gamma-hexabromocyclododecane	-	134237-52-8	2008/10/28
13	Lead hydrogen arsenate	232-064-2	7784-40-9	2008/10/28
14	Sodium dichromate	234-190-3	10588-01-9	2008/10/28
14	Sodium dichromate	234-190-3	7789-12-0	2008/10/28
15	Triethyl arsenate	427-700-2	15606-95-8	2008/10/28
16	2,4-dinitrotoluene	204-450-0	121-14-2	2010/1/13
17	Anthracene oil	292-602-7	90640-80-5	2010/1/13
18	Anthracene oil, anthracene paste	292-603-2	90640-81-6	2010/1/13
19	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	2010/1/13
20	Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	2010/1/13
21	Anthracene oil, anthracene-low	292-604-8	90640-82-7	2010/1/13
22	Diisobutyl phthalate	201-553-2	84-69-5	2010/1/13
23	Lead chromate	231-846-0	7758-97-6	2010/1/13
24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	2010/1/13
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	2010/1/13
26	Pitch, coal tar, high-temp.	266-028-2	65996-93-2	2010/1/13
27	Tris(2-chloroethyl) phosphate	204-118-5	115-96-8	2010/1/13
28	Acrylamide	201-173-7	79-06-1	2010/3/30
29	Ammonium dichromate	232-143-1	7789-09-5	2010/6/18
30	Boric acid	-	-	2010/6/18
30	Boric acid, crude natural	234-343-4	11113-50-1	2010/6/18
30	Boric acid	233-139-2	10043-35-3	2010/6/18
31	Disodium tetraborate, anhydrous	215-540-4	12179-04-3	2010/6/18
31	Disodium tetraborate, anhydrous	215-540-4	1303-96-4	2010/6/18
31	Disodium tetraborate, anhydrous	215-540-4	1330-43-4	2010/6/18
32	Potassium chromate	232-140-5	7789-00-6	2010/6/18
33	Potassium dichromate	231-906-6	7778-50-9	2010/6/18
34	Sodium chromate	231-889-5	7775-11-3	2010/6/18
35	Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	2010/6/18
36	Trichloroethylene	201-167-4	79-01-6	2010/6/18
37	2-ethoxyethanol	203-804-1	110-80-5	2010/12/15

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**Table 1-3 Controlled (SVHC)**

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
38	2-methoxyethanol	203-713-7	109-86-4	2010/12/15
39	Acids generated from chromium trioxide and their oligomers	-	-	2010/12/15
39	Dichromic acid	236-881-5	13530-68-2	2010/12/15
39	Oligomers of chromic acid and dichromic acid	-	-	2010/12/15
39	Chromic acid	231-801-5	7738-94-5	2010/12/15
40	Chromium trioxide	215-607-8	1333-82-0	2010/12/15
41	Cobalt(II) carbonate	208-169-4	513-79-1	2010/12/15
42	Cobalt(II) diacetate	200-755-8	71-48-7	2010/12/15
43	Cobalt(II) dinitrate	233-402-1	10141-05-6	2010/12/15
44	Cobalt(II) sulphate	233-334-2	10124-43-3	2010/12/15
45	1,2,3-trichloropropane	202-486-1	96-18-4	2011/6/20
46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6	2011/6/20
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4	2011/6/20
48	1-Methyl-2-pyrrolidone (NMP)	212-828-1	872-50-4	2011/6/20
49	2-ethoxyethyl acetate	203-839-2	111-15-9	2011/6/20
50	Hydrazine	206-114-9	302-01-2	2011/6/20
50	Hydrazine	206-114-9	7803-57-8	2011/6/20
51	Strontium chromate	232-142-6	7789-06-2	2011/6/20
52	1,2-dichloroethane	203-458-1	107-06-2	2011/12/19
53	2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	2011/12/19
54	2-Methoxyaniline, o-Anisidine	201-963-1	90-04-0	2011/12/19
55	4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	2011/12/19
56	Aluminosilicate Refractory Ceramic Fibres	-	-	2011/12/19
56	Refractories, fibers, aluminosilicate	-	142844-00-6	2011/12/19
57	Arsenic acid	231-901-9	7778-39-4	2011/12/19
58	Bis(2-methoxyethyl) ether	203-924-4	111-96-6	2011/12/19
59	Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	2011/12/19
60	Calcium arsenate	231-904-5	7778-44-1	2011/12/19
61	Dichromium tris(chromate)	246-356-2	24613-89-6	2011/12/19
62	Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	2011/12/19
63	Lead diazide, Lead azide	236-542-1	13424-46-9	2011/12/19
64	Lead dipicrate	229-335-2	6477-64-1	2011/12/19
65	Lead stypnate	239-290-0	15245-44-0	2011/12/19
66	N,N-dimethylacetamide	204-826-4	127-19-5	2011/12/19
67	Pentazinc chromate octahydroxide	256-418-0	49663-84-5	2011/12/19
68	Phenolphthalein	201-004-7	77-09-8	2011/12/19
69	Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9	2011/12/19
70	Trilead diarsenate	222-979-5	3687-31-8	2011/12/19
71	Zirconia Aluminosilicate Refractory Ceramic Fibres	-	-	2011/12/19
71	Refractories, fibers, aluminosilicate	-	142844-00-6	2011/12/19
72	1, 2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	2012/6/18
73	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	2012/6/18
74	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9	2012/6/18
75	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione ( $\beta$ -TGIC)	423-400-0	59653-74-6	2012/6/18
76	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	209-218-2	561-41-1	2012/6/18

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Application : All

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No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
77	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	2012/6/18
78	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	208-953-6	548-62-9	2012/6/18
79	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	219-943-6	2580-56-5	2012/6/18
80	Diboron trioxide	215-125-8	1303-86-2	2012/6/18
81	Formamide	200-842-0	75-12-7	2012/6/18
82	Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	2012/6/18
83	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	2012/6/18
84	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	229-851-8	6786-83-0	2012/6/18
85	1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	284-032-2	84777-06-0	2012/12/19
86	1,2-diethoxyethane	211-076-1	629-14-1	2012/12/19
87	1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	2012/12/19
88	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	2012/12/19
89	4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	2012/12/19
90	4,4'-oxydianiline and its salts	-	-	2012/12/19
90	4,4'-oxydianiline	202-977-0	101-80-4	2012/12/19
91	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	-	2012/12/19
91	Polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenyl ether	-	9002-93-1	2012/12/19
91	2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethanol	-	2315-61-9	2012/12/19
91	20-[4-(1,1,3,3-tetramethylbutyl)phenoxy]-3,6,9,12,15,18-hexaoxaicosan-1-ol	219-682-8	2497-59-8	2012/12/19
91	Poly(oxy-1,2-ethanediyl), $\alpha$ -[(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy-	-	9036-19-5	2012/12/19
91	2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethanol	-	2315-67-5	2012/12/19
92	4-aminoazobenzene	200-453-6	60-09-3	2012/12/19
93	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	2012/12/19
94	4-Nonylphenol, branched and linear	-	-	2012/12/19
94	Phenol, 4-nonyl-, branched	284-325-5	84852-15-3	2012/12/19
94	p-nonylphenol	203-199-4	104-40-5	2012/12/19
94	p-(1,1-dimethylheptyl)phenol	250-339-5	30784-30-6	2012/12/19
94	p-isonylphenol	247-770-6	26543-97-5	2012/12/19
94	p-(1-methyloctyl)phenol	241-427-4	17404-66-9	2012/12/19
94	4-(1-ethyl-1-methylhexyl)phenol	257-907-1	52427-13-1	2012/12/19
94	4-(1-Ethyl-1,3-dimethylpentyl)phenol	-	186825-36-5	2012/12/19
94	4-(1-Ethyl-1,4-dimethylpentyl)phenol	-	142731-63-3	2012/12/19
94	4-(3-ethylheptan-2-yl)phenol	-	186825-39-8	2012/12/19
94	Isononylphenol	234-284-4	11066-49-2	2012/12/19
94	Nonylphenol	246-672-0	25154-52-3	2012/12/19
94	4-(1,1,5-Trimethylhexyl)phenol	-	521947-27-3	2012/12/19
94	Phenol, nonyl-, branched	291-844-0	90481-04-2	2012/12/19
95	6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	2012/12/19
96	[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	2012/12/19
97	Acetic acid, lead salt, basic	257-175-3	51404-69-4	2012/12/19
98	Biphenyl-4-ylamine	202-177-1	92-67-1	2012/12/19

List of Controlled Environmental Substances rev.1

Table 1-3 Controlled (SVHC)

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

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No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
99	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	214-604-9	1163-19-5	2012/12/19
100	Cyclohexane-1,2-dicarboxylic anhydride	-	-	2012/12/19
100	Cyclohexane-1,2-dicarboxylic anhydride	201-604-9	85-42-7	2012/12/19
100	trans-cyclohexane-1,2-dicarboxylic anhydride	238-009-9	14166-21-3	2012/12/19
100	cis-cyclohexane-1,2-dicarboxylic anhydride	236-086-3	13149-00-3	2012/12/19
101	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)	204-650-8	123-77-3	2012/12/19
102	Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	2012/12/19
103	Diethyl sulphate	200-589-6	64-67-5	2012/12/19
104	Diisopentyl phthalate	210-088-4	605-50-5	2012/12/19
105	Dimethyl sulphate	201-058-1	77-78-1	2012/12/19
106	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	2012/12/19
107	Dioxobis(stearato)trilead	235-702-8	12578-12-0	2012/12/19
108	Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	2012/12/19
109	Furan	203-727-3	110-00-9	2012/12/19
110	Henicosafluoroundecanoic acid	218-165-4	2058-94-8	2012/12/19
111	Heptacosafaurotetradecanoic acid	206-803-4	376-06-7	2012/12/19
112	Hexahydromethylphthalic anhydride	-	-	2012/12/19
112	Hexahydro-1-methylphthalic anhydride	256-356-4	48122-14-1	2012/12/19
112	Hexahydro-4-methylphthalic anhydride	243-072-0	19438-60-9	2012/12/19
112	Hexahydromethylphthalic anhydride	247-094-1	25550-51-0	2012/12/19
112	Hexahydro-3-methylphthalic anhydride	260-566-1	57110-29-9	2012/12/19
113	Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	2012/12/19
114	Lead cyanamidate	244-073-9	20837-86-9	2012/12/19
115	Lead dinitrate	233-245-9	10099-74-8	2012/12/19
116	Lead monoxide (lead oxide)	215-267-0	1317-36-8	2012/12/19
117	Lead oxide sulfate	234-853-7	12036-76-9	2012/12/19
118	Lead titanium trioxide	235-038-9	12060-00-3	2012/12/19
119	Lead titanium zirconium oxide	235-727-4	12626-81-2	2012/12/19
120	Methoxyacetic acid	210-894-6	625-45-6	2012/12/19
121	Methyloxirane (Propylene oxide)	200-879-2	75-56-9	2012/12/19
122	N,N-dimethylformamide	200-679-5	68-12-2	2012/12/19
123	N-methylacetamide	201-182-6	79-16-3	2012/12/19
124	n-pentyl-isopentyl phthalate	-	776297-69-9	2012/12/19
125	o-aminoazotoluene	202-591-2	97-56-3	2012/12/19
126	o-toluidine	202-429-0	95-53-4	2012/12/19
127	Orange lead (lead tetroxide)	215-235-6	1314-41-6	2012/12/19
128	Pentacosafaurotridecanoic acid	276-745-2	72629-94-8	2012/12/19
129	Pentalead tetraoxide sulphate	235-067-7	12065-90-6	2012/12/19
130	Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	2012/12/19
131	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped	272-271-5	68784-75-8	2012/12/19
132	Silicic acid, lead salt	234-363-3	11120-22-2	2012/12/19
133	Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	2012/12/19
134	Tetraethyllead	201-075-4	78-00-2	2012/12/19
135	Tetralead trioxide sulphate	235-380-9	12202-17-4	2012/12/19
136	Tricosafaurododecanoic acid	206-203-2	307-55-1	2012/12/19
137	Trilead bis(carbonate) dihydroxide	215-290-6	1319-46-6	2012/12/19

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Table 1-3 Controlled (SVHC)

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

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No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
138	Trilead dioxide phosphonate	235-252-2	12141-20-7	2012/12/19
139	4-Nonylphenol, branched and linear, ethoxylated	-	-	2013/6/20
139	Nonylphenol, ethoxylated (8-EO)	-	9016-45-9	2013/6/20
139	26-(4-Nonylphenoxy)-3,6,9,12,15,18,21,24-octaoxaheptacosan-1-ol	-	14409-72-4	2013/6/20
139	Nonylphenol, ethoxylated (6,5-EO)	-	9016-45-9	2013/6/20
139	Nonylphenol, branched, ethoxylated	500-209-1	68412-54-4	2013/6/20
139	4-Nonylphenol, ethoxylated	500-045-0	26027-38-3	2013/6/20
139	20-(4-nonylphenoxy)-3,6,9,12,15,18-hexaoxaicosan-1-ol	248-743-1	27942-27-4	2013/6/20
139	Nonylphenol, ethoxylated (10-EO)	-	9016-45-9	2013/6/20
139	Nonylphenol, ethoxylated	500-024-6	9016-45-9	2013/6/20
139	Poly(oxy-1,2-ethanediyl), $\alpha$ -(nonylphenyl)- $\omega$ -hydroxy-, branched	-	68412-54-4	2013/6/20
139	Poly (oxy-1,2-ethanediyl), alpha -(nonylphenyl)-omega-hydroxy-, branched	-	68412-54-4	2013/6/20
139	2-[2-[2-(4-nonylphenoxy)ethoxy]ethoxy]ethanol	230-770-5	7311-27-5	2013/6/20
139	Nonylphenol, ethoxylated (15-EO)	-	9016-45-9	2013/6/20
139	2-[2-(4-nonylphenoxy)ethoxy]ethanol	243-816-4	20427-84-3	2013/6/20
139	4-Nonylphenol, branched, ethoxylated	-	127087-87-0	2013/6/20
139	4-Nonylphenol, branched, ethoxylated	500-315-8	127087-87-0	2013/6/20
139	17-(4-nonylphenoxy)-3,6,9,12,15-pentaoxaheptadecan-1-ol	-	34166-38-6	2013/6/20
139	Isononylphenol, ethoxylated	-	37205-87-1	2013/6/20
139	Nonylphenol, ethoxylated (polymer)	-	-	2013/6/20
139	Nonylphenol, ethoxylated (EO = 4)	-	-	2013/6/20
139	Nonylphenol, ethoxylated (EO = 10)	-	-	2013/6/20
139	4-t-Nonylphenol-diethoxylate	-	156609-10-8	2013/6/20
139	3,6,9,12-Tetraoxatetradecan-1-ol, 14-(4-nonylphenoxy)-	-	20636-48-0	2013/6/20
139	2-(nonylphenoxy)ethanol	248-762-5	27986-36-3	2013/6/20
139	26-(nonylphenoxy)-3,6,9,12,15,18,21,24-octaoxaheptacosan-1-ol	255-695-5	42173-90-0	2013/6/20
139	44-(nonylphenoxy)-3,6,9,12,15,18,21,24,27,30,33,36,39,42-tetradecacoxatetratetracontanol	260-678-0	57321-10-5	2013/6/20
139	20-(isononylphenoxy)-3,6,9,12,15,18-hexaoxaicosan-1-ol	265-785-6	65455-69-8	2013/6/20
139	3,6,9,12-Tetraoxatetradecan-1-ol, 14-(4-nonylphenoxy)-, branched	293-926-1	91648-64-5	2013/6/20
139	Poly(oxy-1,2-ethanediyl), $\alpha$ -(nonylphenyl)- $\omega$ -hydroxy-	-	9016-45-9	2013/6/20
139	3,6,9,12,15,18,21,24,27-Nonaoxanonacosan-1-ol, 29-(isononylphenoxy)-	-	65455-72-3	2013/6/20
139	3,6,9,12,15-Pentaoxaheptadecan-1-ol, 17-(nonylphenoxy)-	-	27177-01-1	2013/6/20
139	2-[2-[3,6-dimethylheptan-3-yl]phenoxy]ethanol	-	1119449-38-5	2013/6/20
139	2-[4-(3,6-dimethylheptan-3-yl)phenoxy]ethanol	-	1119449-37-4	2013/6/20
139	Nonylphenolpolyglycoether	-	-	2013/6/20
139	2-(4-nonylphenoxy)ethanol	-	104-35-8	2013/6/20
139	29-(nonylphenoxy)-3,6,9,12,15,18,21,24,27-nonaoxanonacosanol	248-294-1	27177-08-8	2013/6/20
139	23-(nonylphenoxy)-3,6,9,12,15,18,21-heptaoxatricosan-1-ol	248-293-6	27177-05-5	2013/6/20
139	20-(nonylphenoxy)-3,6,9,12,15,18-hexaoxaicosan-1-ol	248-292-0	27177-03-3	2013/6/20
139	2-[2-(nonylphenoxy)ethoxy]ethanol	248-291-5	27176-93-8	2013/6/20
139	26-(nonylphenoxy)-3,6,9,12,15,18,21,24-octaoxaheptacosan-1-ol	247-816-5	26571-11-9	2013/6/20
139	2-(isononylphenoxy)ethanol	284-987-5	85005-55-6	2013/6/20

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**Table 1-3 Controlled (SVHC)**

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
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No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
139	14-(nonylphenoxy)-3,6,9,12-tetraoxatetradecan-1-ol	247-555-7	26264-02-8	2013/6/20
140	Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	2013/6/20
141	Cadmium	231-152-8	7440-43-9	2013/6/20
142	Cadmium oxide	215-146-2	1306-19-0	2013/6/20
143	Dipentyl phthalate (DPP)	205-017-9	131-18-0	2013/6/20
144	Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	2013/6/20
145	Cadmium sulphide	215-147-8	1306-23-6	2013/12/16
146	Dihexyl phthalate	201-559-5	84-75-3	2013/12/16
147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4	573-58-0	2013/12/16
148	Disodium 4-amino-3-[[4'-(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	217-710-3	1937-37-7	2013/12/16
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	202-506-9	96-45-7	2013/12/16
150	Lead di(acetate)	206-104-4	301-04-2	2013/12/16
151	Trixyl phosphite	246-677-8	25155-23-1	2013/12/16
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	2014/6/16
153	Cadmium chloride	233-296-7	10108-64-2	2014/6/16
154	Sodium perborate, perboric acid, sodium salt	-	-	2014/6/16
154	Perboric acid, sodium salt, tetrahydrate ()	-	37244-98-7	2014/6/16
154	Perboric acid (HBO(O <sub>2</sub> )), sodium salt, tetrahydrate	-	10486-00-7	2014/6/16
154	Sodium perborate monohydrate	-	10332-33-9	2014/6/16
154	Borate(2-), tetrahydroxybis[μ-(peroxy-κO <sub>1</sub> :κO <sub>2</sub> )]di-, sodium, hydrate (1:2:6)	-	125022-34-6	2014/6/16
154	Borate(2-), tetrahydroxybis[μ-(peroxy-κO <sub>1</sub> :κO <sub>2</sub> )]di-, sodium (1:2)	-	90568-23-3	2014/6/16
154	Perboric acid, sodium salt	234-390-0	11138-47-9	2014/6/16
154	Perboric acid (H <sub>3</sub> BO <sub>2</sub> (O <sub>2</sub> )), monosodium salt, trihydrate	-	13517-20-9	2014/6/16
154	Sodium perborate	239-172-9	15120-21-5	2014/6/16
155	Sodium peroxometaborate	231-556-4	7632-04-4	2014/6/16
156	2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol (UV-328)	247-384-8	25973-55-1	2014/12/17
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	2014/12/17
158	2-ethylhexyl 10-ethyl-4,4-diethyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	2014/12/17
159	Cadmium fluoride	232-222-0	7790-79-6	2014/12/17
160	Cadmium sulphate	233-331-6	10124-36-4	2014/12/17
160	Cadmium sulphate	233-331-6	31119-53-6	2014/12/17
161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-diethyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	-	2014/12/17
162	1,2-benzenedicarboxylic acid, di-C <sub>6</sub> -10-alkyl esters or mixed decyl and hexyl and octyl diesters	-	-	2015/6/15
162	1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters	272-013-1	68648-93-1	2015/6/15
162	1,2-Benzenedicarboxylic acid, di-C <sub>6</sub> -10-alkyl esters	271-094-0	68515-51-5	2015/6/15
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2]	-	-	2015/6/15

**List of Controlled Environmental Substances rev.1**

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Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
163	Reaction mass of 5-[(2R)-butan-2-yl]-2-[(1R,2R)-2,4-dimethylcyclohex-3-en-1-yl]-5-methyl-1,3-dioxane and 5-[(2R)-butan-2-yl]-2-[(1R,6R)-4,6-dimethylcyclohex-3-en-1-yl]-5-methyl-1,3-dioxane and 5-[(2S)-butan-2-yl]-2-[(1R,2R)-2,4-dimethylcyclohex-3-en-1-yl]-5-methyl-1,3-dioxane and 5-[(2S)-butan-2-yl]-2-[(1S,2R)-2,4-dimethylcyclohex-3-en-1-yl]-5-methyl-1,3-dioxane and 5-[(2S)-butan-2-yl]-2-[(1S,6R)-4,6-dimethylcyclohex-3-en-1-yl]-5-methyl-1,3-dioxane	-	-	2015/6/15
163	1,3-Dioxane, 2-[(1S,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans-	-	676367-06-9	2015/6/15
163	5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane	-	-	2015/6/15
163	Reaction mass of 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane and 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane	413-720-9	-	2015/6/15
163	1,3-Dioxane, 2-(2,4-dimethyl-3-cyclohexen-1-yl)-5-methyl-5-(1-methylpropyl)-	-	117933-89-8	2015/6/15
163	1,3-Dioxane, 2-(2,4-dimethyl-3-cyclohexen-1-yl)-5-methyl-5-(1-methylpropyl)-	-	186309-28-4	2015/6/15
163	1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis-	-	676367-05-8	2015/6/15
163	1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis-rel-	-	343934-04-3	2015/6/15
163	1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans-	-	676367-09-2	2015/6/15
163	1,3-Dioxane, 2-[(1R,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans-rel-	-	343934-05-4	2015/6/15
163	1,3-Dioxane, 2-[(1R,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis-	-	676367-04-7	2015/6/15
163	1,3-Dioxane, 2-[(1R,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans-	-	676367-08-1	2015/6/15
163	1,3-Dioxane, 2-[(1S,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis-	-	676367-03-6	2015/6/15
163	1,3-Dioxane, 2-[(1S,2R)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, trans-	-	676367-07-0	2015/6/15
163	1,3-Dioxane, 2-[(1S,2S)-2,4-dimethyl-3-cyclohexen-1-yl]-5-methyl-5-(1-methylpropyl)-, cis-	-	676367-02-5	2015/6/15
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane	-	-	2015/6/15
164	1,3-propanesultone	214-317-9	1120-71-4	2015/12/17
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	2015/12/17
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	2015/12/17
167	Nitrobenzene	202-716-0	98-95-3	2015/12/17
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	-	-	2015/12/17
168	Perfluorononan-1-oic-acid	206-801-3	375-95-1	2015/12/17
168	Sodium salts of perfluorononan-1-oic-acid	-	21049-39-8	2015/12/17
168	Ammonium salts of perfluorononan-1-oic-acid	-	4149-60-4	2015/12/17
169	Benzo[def]chrysene (Benzo[a]pyrene)	200-028-5	50-32-8	2016/6/20
170	4,4'-isopropylidenediphenol (Bisphenol A ,BPA)	201-245-8	80-05-7	2017/1/12
171	4-heptylphenol, branched and linear	-	-	2017/1/12
171	4-heptylphenol	217-862-0	1987-50-4	2017/1/12
171	Phenol, heptyl derivs.	276-743-1	72624-02-3	2017/1/12

**List of Controlled Environmental Substances rev.1**

**Table 1-3 Controlled (SVHC)**

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
171	4-(3-ethylpentan-3-yl)phenol	-	37872-24-5	2017/1/12
171	4-(2-methylhexan-2-yl)phenol	-	30784-31-7	2017/1/12
171	4-(3,3-dimethylpentan-2-yl)phenol	-	911371-06-7	2017/1/12
171	4-(3-methylhexan-2-yl)phenol	-	854904-93-1	2017/1/12
171	4-(4,4-dimethylpentan-2-yl)phenol	-	911371-07-8	2017/1/12
171	4-(4-methylhexan-2-yl)phenol	-	71945-81-8	2017/1/12
171	4-(5-methylhexan-2-yl)phenol	-	857629-71-1	2017/1/12
171	4-(2,2-dimethylpentan-3-yl)phenol	-	861010-65-3	2017/1/12
171	Phenol, 4-(1-ethyl-1,2-dimethylpropyl)-	-	30784-27-1	2017/1/12
171	4-(heptan-3-yl)phenol	-	6465-74-3	2017/1/12
171	4-(heptan-2-yl)phenol	-	6863-24-7	2017/1/12
171	4-(heptan-4-yl)phenol	-	6465-71-0	2017/1/12
171	4-(3-ethylpentyl)phenol	-	911370-98-4	2017/1/12
171	4-(3-methylhexyl)phenol	-	102570-52-5	2017/1/12
171	4-(4-methylhexyl)phenol	-	1139800-98-8	2017/1/12
171	4-(5-methylhexyl)phenol	-	100532-36-3	2017/1/12
171	4-(2,4-dimethylpentan-3-yl)phenol	-	1824346-00-0	2017/1/12
171	Phenol, 4-tert-heptyl-	-	288864-02-8	2017/1/12
171	4-(2,3-dimethylpentan-2-yl)phenol	-	861011-60-1	2017/1/12
171	4-(3-methylhexan-3-yl)phenol	-	30784-32-8	2017/1/12
171	4-(2,4-dimethylpentan-2-yl)phenol	-	33104-11-9	2017/1/12
171	4-(2,3,3-trimethylbutan-2-yl)phenol	-	72861-06-4	2017/1/12
171	4-(5-methylhexan-3-yl)phenol	-	854904-92-0	2017/1/12
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	-	-	2017/1/12
172	Nonadecafluorodecanoic acid	206-400-3	335-76-2	2017/1/12
172	sodium nonadecafluorodecanoate	-	3830-45-3	2017/1/12
172	Ammonium nonadecafluorodecanoate	221-470-5	3108-42-7	2017/1/12
173	p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6	2017/1/12
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	-	-	2017/7/7
174	perfluorohexane-1-sulphonic acid	206-587-1	355-46-4	2017/7/7
174	ammonium perfluorohexane-1-sulphonate	269-511-6	68259-08-5	2017/7/7
174	tridecafluorohexanesulphonic acid, compound with 2,2'-iminodiethanol (1:1)	274-462-9	70225-16-0	2017/7/7
174	potassium perfluorohexane-1-sulphonate	223-393-2	3871-99-6	2017/7/7
174	Ethanaminium, N-[4-[[4-(diethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	1310480-24-0	2017/7/7
174	Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	1310480-27-3	2017/7/7
174	Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(phenylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	1310480-28-4	2017/7/7
174	Beta-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid ion(1-)(1:1)	-	1329995-45-0	2017/7/7
174	Gamma-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid ion(1-)(1:1)	-	1329995-69-8	2017/7/7

**List of Controlled Environmental Substances rev.1**

**Table 1-3 Controlled (SVHC)**

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
174	Sulfonium, triphenyl-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	144116-10-9	2017/7/7
174	Quinolinium, 1-(carboxymethyl)-4-[2-[4-[4-(2,2-diphenylethenyl)phenyl]-1,2,3,3a,4,8b-hexahydrocyclopent[b]indol-7-yl]ethenyl]-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	1462414-59-0	2017/7/7
174	Iodonium, diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	153443-35-7	2017/7/7
174	Methanaminium, N,N,N-trimethyl-, salt with 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1)	-	189274-31-5	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2-methyl-2-propanamine (1:1)	-	202189-84-2	2017/7/7
174	Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	213740-81-9	2017/7/7
174	Sulfonium, bis(4-methylphenyl)phenyl-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	341548-85-4	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, scandium(3+) salt (3:1)	-	350836-93-0	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, neodymium(3+) salt (3:1)	-	41184-65-0	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, yttrium(3+) salt (3:1)	-	41242-12-0	2017/7/7
174	Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, salt with 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:2)	-	421555-73-9	2017/7/7
174	Iodonium, bis[4-(1,1-dimethylpropyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic	-	421555-74-0	2017/7/7
174	Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	425670-70-8	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, lithium salt (1:1)	-	55120-77-9	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, zinc salt	-	70136-72-0	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, compd. with N,N-diethylethanamine (1:1)	-	72033-41-1	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, sodium salt	-	82382-12-5	2017/7/7
174	Iodonium, bis[(1,1-dimethylethyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (9CI)	-	866621-50-3	2017/7/7
174	Sulfonium, (4-methylphenyl)diphenyl-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	910606-39-2	2017/7/7
174	Sulfonium, [4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]diphenyl-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	911027-68-4	2017/7/7
174	Sulfonium, [4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]diphenyl-, salt with 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1), polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate	-	911027-69-5	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-, cesium salt (1:1)	-	92011-17-1	2017/7/7
174	Dibenzo[k,n][1,4,7,10,13]tetraoxathiacyclopentadecinium, 19-[4-(1,1-dimethylethyl)phenyl]-6,7,9,10,12,13-hexahydro-, 1,1,2,2,3,3,4,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	928049-42-7	2017/7/7

List of Controlled Environmental Substances rev.1

Table 1-3 Controlled (SVHC)

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. With pyrrolidine (1:1)	-	1187817-57-7	2017/7/7
174	N,N,N-triethylethanaminium tridecafluorohexane-1-sulfonate	-	108427-55-0	2017/7/7
174	N,N,N-tributylbutan-1-aminium tridecafluorohexane-1-sulfonate	-	108427-54-9	2017/7/7
174	Phosphonium, triphenyl(phenylmethyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)	-	1000597-52-3	2017/7/7
174	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, gallium salt (9Cl)	-	341035-71-0	2017/7/7
175	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus™")	-	-	2018/1/15
175	(1S,2S,5R,6R,9S,10S,13R,14R)-1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene	-	135821-03-3	2018/1/15
175	1,6,7,8,9,14,15,16,17,17,18,18-dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene	236-948-9	13560-89-9	2018/1/15
175	(1S,2S,5S,6S,9R,10R,13R,14R)-1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene	-	135821-74-8	2018/1/15
175	rel-(1R,4S,4aS,6aR,7R,10S,10aS,12aR)-1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-1,4:7,10-dimethanodibenzo[a,e]cyclooctene	-	-	2018/1/15
175	rel-(1R,4S,4aS,6aS,7S,10R,10aR,12aR)-1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-1,4:7,10-dimethanodibenzo[a,e]cyclooctene	-	-	2018/1/15
176	Benz[a]anthracene	200-280-6	56-55-3	2018/1/15
177	Cadmium carbonate	208-168-9	513-78-0	2018/1/15
178	Cadmium hydroxide	244-168-5	21041-95-2	2018/1/15
179	Cadmium nitrate	233-710-6	10325-94-7	2018/1/15
180	Chrysene	205-923-4	218-01-9	2018/1/15
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	-	-	2018/1/15
181	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs.	-	1471311-26-8	2018/1/15
181	Formaldehyde, reaction products with branched and linear heptylphenol, carbon disulfide and hydrazine	300-298-5	93925-00-9	2018/1/15
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride	209-008-0	552-30-7	2018/6/27
183	Benzo[ghi]perylene	205-883-8	191-24-2	2018/6/27
184	Decamethylcyclopentasiloxane	208-764-9	541-02-6	2018/6/27
185	Dicyclohexyl phthalate	201-545-9	84-61-7	2018/6/27
186	Disodium octaborate	234-541-0	12008-41-2	2018/6/27
187	Dodecamethylcyclohexasiloxane	208-762-8	540-97-6	2018/6/27
188	Ethylenediamine	203-468-6	107-15-3	2018/6/27
189	Lead	231-100-4	7439-92-1	2018/6/27
190	Octamethylcyclotetrasiloxane	209-136-7	556-67-2	2018/6/27
191	Terphenyl, hydrogenated	262-967-7	61788-32-7	2018/6/27
192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	239-139-9	15087-24-8	2019/1/15

List of Controlled Environmental Substances rev.1

Table 1-3 Controlled (SVHC)

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
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No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	6807-17-6	2019/1/15
194	Benzo[k]fluoranthene	205-916-6	207-08-9	2019/1/15
195	Fluoranthene	205-912-4	206-44-0	2019/1/15
196	Phenanthrene	201-581-5	85-01-8	2019/1/15
197	Pyrene	204-927-3	129-00-0	2019/1/15
198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides	-	-	2019/7/16
198	potassium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionate	266-578-3	67118-55-2	2019/7/16
198	ammonium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate	-	62037-80-3	2019/7/16
198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionyl fluoride	218-173-8	2062-98-8	2019/7/16
198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid	236-236-8	13252-13-6	2019/7/16
198	Propanoic acid, 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-, (+)-	-	75579-39-4	2019/7/16
198	Propanoic acid, 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-, (-)-	-	75579-40-7	2019/7/16
199	2-methoxyethyl acetate	203-772-9	110-49-6	2019/7/16
200	4-tert-butylphenol	202-679-0	98-54-4	2019/7/16
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	2019/7/16
201	Phenol, 4-nonyl-, phosphite (3:1)	-	3050-88-2	2019/7/16
201	tris(nonylphenyl) phosphite	247-759-6	26523-78-4	2019/7/16
201	tris(4-nonylphenyl, branched) phosphite	-	-	2019/7/16
201	Phenol, p-isonyl-, phosphite (3:1)	-	31631-13-7	2019/7/16
201	Phenol, p-sec-nonyl-, phosphite	-	106599-06-8	2019/7/16
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	404-360-3	119313-12-1	2020/1/16
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	400-600-6	71868-10-5	2020/1/16
204	Diisohexyl phthalate	276-090-2	71850-09-4	2020/1/16
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	2020/1/16
205	Potassium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonate	249-616-3	29420-49-3	2020/1/16
205	1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonic acid	206-793-1	375-73-5	2020/1/16
205	bis(4-t-butylphenyl)iodonium perfluorobutanesulfonate	432-660-4	194999-85-4	2020/1/16
205	tetrabutyl-phosphonium nonafluoro-butane-1-sulfonate	444-440-5	220689-12-3	2020/1/16
205	dimethyl(phenyl)sulfonium perfluorobutanesulfonate	452-310-4	220133-51-7	2020/1/16
205	Ammonium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonate	269-513-7	68259-10-9	2020/1/16
205	Triphenylsulfonium perfluorobutane sulfonate	478-340-8	144317-44-2	2020/1/16
205	N,N,N-triethylethanaminium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonate	-	25628-08-4	2020/1/16
205	magnesium perfluorobutanesulfonate	-	507453-86-3	2020/1/16
205	lithium perfluorobutanesulfonate	-	131651-65-5	2020/1/16
205	morpholinium perfluorobutanesulfonate	-	503155-89-3	2020/1/16
205	1-(4-butoxy-1-naphthalenyl)tetrahydrothiophenium 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate	468-770-4	-	2020/1/16
206	1-vinylimidazole	214-012-0	1072-63-5	2020/6/25
207	2-methylimidazole	211-765-7	693-98-1	2020/6/25
208	Butyl 4-hydroxybenzoate	202-318-7	94-26-8	2020/6/25
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	245-152-0	22673-19-4	2020/6/25
210	Bis(2-(2-methoxyethoxy)ethyl)ether	205-594-7	143-24-8	2021/1/19
211	Diocetyltin dilaurate, stannane, diocetyl-, bis(coco acyloxy) derivs., and any other stannane, diocetyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-	-	2021/1/19

List of Controlled Environmental Substances rev.1

Table 1-3 Controlled (SVHC)

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No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
211	Stannane, dioctyl-, bis(coco acyloxy) derivs.	293-901-5	91648-39-4	2021/1/19
211	dioctyltin dilaurate; stannane, dioctyl-, bis(coco acyloxy) derivs.	-	-	2021/1/19
211	Dioctyltin dilaurate	222-883-3	3648-18-8	2021/1/19
212	1,4-dioxane	204-661-8	123-91-1	2021/7/8
213	2,2-bis(bromomethyl)propane-1,3-diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA); 2,3-dibromo-1-propanol (2,3-DBPA)	-	-	2021/7/8
213	2,2-dimethylpropan-1-ol, tribromo derivative (TBNPA)	253-057-0	36483-57-5	2021/7/8
213	2,3-dibromo-1-propanol (2,3-DBPA)	202-480-9	96-13-9	2021/7/8
213	2,2-bis(bromomethyl)propane-1,3-diol (BMP)	221-967-7	3296-90-0	2021/7/8
213	3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA)	-	1522-92-5	2021/7/8
214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	-	-	2021/7/8
214	(2R)-3-(4-tert-butylphenyl)-2-methylpropanal	-	75166-31-3	2021/7/8
214	2-(4-tert-butylbenzyl)propionaldehyde	201-289-8	80-54-6	2021/7/8
214	(2S)-3-(4-tert-butylphenyl)-2-methylpropanal	-	75166-30-2	2021/7/8
215	4,4'-(1-methylpropylidene)bisphe nol	201-025-1	77-40-7	2021/7/8
216	glutaral	203-856-5	111-30-8	2021/7/8
217	Medium-chain chlorinated paraffins (MCCP)	-	-	2021/7/8
217	Alkanes, C14-17, chloro	287-477-0	85535-85-9	2021/7/8
217	di-, tri- and tetrachlorotetradecane	-	-	2021/7/8
217	Tetradecane, chloro derivs.	-	198840-65-2	2021/7/8
217	Alkanes, C14-16, chloro	-	1372804-76-6	2021/7/8
218	orthoboric acid, sodium salt	-	-	2021/7/8
218	Boric acid, sodium salt	215-604-1	1333-73-9	2021/7/8
218	Orthoboric acid, sodium salt	237-560-2	13840-56-7	2021/7/8
218	boric acid (H3BO3), sodium salt, hydrate	-	25747-83-5	2021/7/8
218	boric acid (H3BO3), sodium salt (1:1)	-	14890-53-0	2021/7/8
218	Boric acid (H3BO3), disodium salt	-	22454-04-2	2021/7/8
218	Trisodium orthoborate	238-253-6	14312-40-4	2021/7/8
219	Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/or combinations thereof (PDDP)	-	-	2021/7/8
219	Phenol, dodecyl-, branched	310-154-3	121158-58-5	2021/7/8
219	Phenol, 4-dodecyl, branched	-	210555-94-5	2021/7/8
219	Phenol, 4-isododecyl-	-	27147-75-7	2021/7/8
219	Phenol, tetrapropylene-	-	57427-55-1	2021/7/8
219	Phenol, (tetrapropenyl) derivatives	-	74499-35-7	2021/7/8
219	4-isododecylphenol	-	27459-10-5	2021/7/8
220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	-	-	2022/1/17
220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one	253-242-6	36861-47-9	2022/1/17
220	(3E)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	-	1782069-81-1	2022/1/17
220	(1R,3E,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	-	95342-41-9	2022/1/17
220	(1S,3E,4R)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	-	852541-30-1	2022/1/17

**List of Controlled Environmental Substances rev.1**

**Table 1-3 Controlled (SVHC)**

Key Legal and Regulatory or Industry standard/agreement citation : Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006  
Application : All

If a substance is found to be contained, please report it regardless of the threshold value.

No.	Substance/Substance group	EC No.	CAS No.	Date of inclusion
220	(1R,3Z,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	-	852541-21-0	2022/1/17
220	(1R,4S)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	-	741687-98-9	2022/1/17
220	(1S,3Z,4R)-1,7,7-trimethyl-3-(4-methylbenzylidene)bicyclo[2.2.1]heptan-2-one	-	852541-25-4	2022/1/17
221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	204-327-1	119-47-1	2022/1/17
222	S-(tricyclo(5.2.1.0'2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	401-850-9	255881-94-8	2022/1/17
223	tris(2-methoxyethoxy)vinylsilane	213-934-0	1067-53-4	2022/1/17
224	N-(hydroxymethyl)acrylamide	213-103-2	924-42-5	2022/6/22
225	1,1'-[ethane-1,2-diylbisoxyl]bis[2,4,6-tribromobenzene]	253-692-3	37853-59-1	2023/1/17
226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	201-236-9	79-94-7	2023/1/17
227	4,4'-sulphonyldiphenol	201-250-5	80-09-1	2023/1/17
228	Barium diboron tetraoxide	237-222-4	13701-59-2	2023/1/17
229	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	-	-	2023/1/17
229	Bis(2-ethylhexyl) tetrabromophthalate	247-426-5	26040-51-7	2023/1/17
230	Isobutyl 4-hydroxybenzoate	224-208-8	4247-02-3	2023/1/17
231	Melamine	203-615-4	108-78-1	2023/1/17
232	Perfluoroheptanoic acid and its salts	-	-	2023/1/17
232	Ammonium perfluoroheptanoate	228-098-2	6130-43-4	2023/1/17
232	potassium perfluoroheptanoate	-	21049-36-5	2023/1/17
232	Perfluoroheptanoic acid	206-798-9	375-85-9	2023/1/17
232	Sodium perfluoroheptanoate	243-518-4	20109-59-5	2023/1/17
233	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	473-390-7	-	2023/1/17
234	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	278-355-8	75980-60-8	2023/6/14
235	Bis(4-chlorophenyl) sulphone	201-247-9	80-07-9	2023/6/14
236	2,4,6-tri-tert-butylphenol	211-989-5	732-26-3	2024/1/23
237	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)	221-573-5	3147-75-9	2024/1/23
238	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	438-340-0	119344-86-4	2024/1/23
239	Bumetizole (UV-326)	223-445-4	3896/11/5	2024/1/23
240	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol	700-960-7	-	2024/1/23

## notes

- (1) Formerly known as EICTA
- (2) Now part of TechAmerica
- (3) A printed wiring board laminate refers to the layered board materials excluding surface finishes and components.
- (4) The battery reporting threshold level is based on the strictest known legal requirement. However, for simplification, the same reporting threshold level is set for all kind of batteries, even if the underlying legal requirement is only applicable for only one specific battery type.
- (5) Commission Decision 2009/251/EC defines a concentration limit of 0.00001% by weight of DMF in the product or part of the product and Commission Regulation (EC) No 552/2009 defines a concentration limit of 0.1% by weight of PFOS in the semifinished product or article or part thereof. The concentration limit is applied at the level of a material vs. a part to ensure disclosure of the regulated substances for the most basic unit of a part  
Regulatory thresholds for substances in these applications are based on emission or exposure limits rather than on the concentration in the product. Examples of regulatory limits are:
  - Formaldehyde in hardwood plyboard with veneer core - 0.05 ppm (measured as gaseous emission from product);
  - For Nickel in applications of prolonged skin contact - 0.5 $\mu$ g/cm<sup>2</sup>/week per DIN EN 1811;
  - Radioactive substances - a dose rate exceeding 1  $\mu$ Sv h<sup>-1</sup> at a distance of 0.1 m.
- (6) Because emission and exposure levels cannot be derived from actual concentrations, a threshold level of "intentionally added" is indicated for reporting. Suppliers may choose to report a default concentration of 0.1% by weight in the product for these substances, in lieu of determining the exact concentrations in their products, to indicate that the substance is known to be present in their product, as the actual concentration in the product is not informative for regulatory compliance assessment.
- (7) Nickel must be reported in certain regulated applications where it is likely to result in prolonged skin exposure (e.g., an outer enclosure for a portable electronic product designed to be carried). Use of nickel or nickel contained in components and parts designed to be located inside the outer enclosure of a product need not be reported.