Guidelines for the regulation of environmental related substances

Scope

This document is valid for products, materials and substances which are delivered to AT&S. The list of banned and restricted substances was established with regard to customer's requirements as well as legal requirements which have to be observed.

Definition

Banned and restricted substances – This means substances, mentioned in the lists below.
It concerns environmental related substances which are contained in parts or materials which have significant environmental impact on humans and the global environment.

Banned substances – These substances are not allowed to be used generally or above the threshold limit. Banned substances are mentioned in the "List of banned substances". Banned substances have to be declared in the form *AT&S certification of environmental related substances*.

List of banned substances – This list contains banned substances due to regulations by law in Austria, Germany, within the European Union, Asia and further states worldwide. The prohibitions are valid for the production of products as well as for products, but also for the packaging and means of transport like palettes etc. In case of exceptional arrangements for special materials (e.g. transition periods) a written substantiation is required for the use of such materials or rather products by the supplier.

Restricted substances – These substances are allowed to be used but if the content of restricted substances in the products delivered to AT&S is above 0,1% weight /weight the substance has to be declared in the form "*AT&S certification of environmental related substances*".
Restricted substances are mentioned in the *List of restricted substances*.

Impurity – impurity means a substance which is either contained in a natural material which cannot be completely removed by a refining process by technical means or either generated in a synthesis process which cannot be completely removed by technical means.
If the "Substance of Concern" is mingled with an "Impurity", the allowable concentration, specified with this standard, must not be exceeded.

CAS – Number – This number is a numeric identifier which designates only one substance. CAS(Chemical Abstract Service) Registry Numbers are assigned by the CAS Registry which is the largest and most current database of chemical substance information in the world.

AT&S certification of environmental related substances – This certification has been created for suppliers to give information about the content of banned and restricted substances in their products and materials which are delivered to AT&S. After the check of the *guidelines for the regulation of environmental related substances* the certification has to be completed and returned to AT&S by the supplier.

REACH – Directive 1907/2006 EC – Suppliers have to guarantee that no substances mentioned on the candidate list (so called SVHC substances) are contained in the products supplied to AT&S. This is applicable to all AT&S locations.
In case SVHC are contained in the products above the threshold limit of 0.1% suppliers have to fill out the AT&S certification of environmental related substances according to the definition above.
The candidate list is available by using following link:
https://echa.europa.eu/web/guest/candidate-list-table

Demands on supplier

Cascade down the requirements to their sub-tier supplier. Sub-tier supplier data input is a must for complete material and substance data determination.

Report any change to the material content of an approved material, part or preparation by re-submitting an updated Certification for non-use environmental related substances.

By completing and signing this "AT&S Certification of environmental related substances for suppliers", the supplier guarantees that the information is true and correct to the best of the supplier's knowledge.

"AT&S Certification of environmental related substances for suppliers" is available by using following link:
http://www.ats.net/suppliers/downloadcenter/

Packaging materials shall not exceed the maximum threshold on lead, cadmium, chromium 6+ and Mercury over 0,01% at all.

Revisions

This document will be revised if any changes of customer's requirements or legal regulations will occur. This document is managed by the environmental department of AT&S.
In case of questions, the environmental department can be contacted by using following e-mail address: environment@ats.net.

Revision 1→2: add bromine and chlorine to list of restricted substances
Revision 2→3: add threshold 1000 ppm for PBB and PBDE
Revision 3→4: add legal requirements to scope
Revision 4→5: change threshold limit PBB /PBDE and TBBPA from 1000 to 900 ppm, change threshold limit antimony from 1000 to 700 ppm.
Revision5→6:
1. Change for List of banned substances:
- Add DMF, HBCCD, PFOA, perchlorates and all members, Monomethyl-dibromo-diphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyl-tetrachlorodiphenyl methane;
- Change the threshold limit for Azo pigments with carcinogenic amine compounds from no limit to 20ppm;
- Change threshold limit for Dioxins and Furans (sum) TCDD (Seveso toxin), CFC, Tar oils and Ugilec and DBBT as sum (PCB replacements) from 0 to Non-use;
- Change threshold limit for beryllium oxide, PFOS, PBT, phthalates from no limit to 1000ppm;
- Change threshold limit for PAH/PAK from no limit to 10 ppm for Benzo(a)pyrene, 200 ppm for sum PAH;
- Change threshold limit for asbestos, Organic tin compounds, Ozone depleting substances and 2-Benzotriazole from no limit to non-use;
- Change threshold limit for Lead and lead compounds from 100ppm to 50ppm;
- Change threshold limit for arsenic from 400ppm to 50ppm, change threshold limit for PCB, PCT, PCN from no limit to 5ppm;
- Change Polyvinyl chloride (PVC) from no limit to 900 ppm chlorine, Chlorine + bromine≤1500ppm;
- Delete Halogenated biphenyls, terphenyls and naphthalene, Sulfurhexafluorid , Tris-(1- aziridinyl)phosphine oxide;
- Add Annex G, Annex H, Annex I, Annex J.
2. Change for list of restricted substances:
- Add some substances marked as grey according to customer requirement and GADSL;
- Remove Carcinogenic, mutagenic and reproduction toxic chemicals from banned list to Restricted list;
3. Change for demands on supplier
- Add the link for downloading Certification of environmental related substances for suppliers.
4. Update the definition for list of banned substances.
Revision6→7:
Change applicable scope and threshold for cadmium & cadmium compounds, lead &lead Compounds
All actual modifications within this revision are hatched in grey
Revision 7 → 8: new SVHC substances (12th January 2017). Add Annex XIV and XVII.
Revision 8 → 9: Benzenamine, N-phenyl-,reaction products with styrene and 2,4,4- trimethylpentene (BNST) 68921-45-9 delete in the "restriction list" Add in banned list, threshold changed to "Non-use". -Add "Chlorinated Organic Solvents and Annex k" to "banned list".
-Update banned substance 18 (HBCDD).
-Threshold limit banned substance 28 "Perchlorates" from 0.1 ppm to 0.006 ppm changed.

-Add Annex L for PFOS and changes threshold limit from 1000ppm to Non-use.
-Changed threshold limit substance 30 PFOA from 1000ppm to Non-use.
-Bisphenol A deletes in the “restriction list” and add in banned list, threshold limit changed to Non-use.
-Add new substances in Annex G.
-Changed threshold limit substance 36 PAHs/PAK from 10 ppm Benzo(a)pyrene and 200ppm for sum of PAHs to 1 ppm per individual PAH compound and 10 ppm for sum of all PAHs. Add new substances to Annex H.
-Add “California Proposition 65 List of Chemicals.
-Add “IEC 62474 Declarable Substances”.
-Add Nanomaterials.
Revision 9 → 10:
- Changed threshold limit Phthalates Annex G (Banned list) from 1000ppm to 800 ppm.
- Add Bisphenol F, Bisphenol S with threshold limit 100 ppm to list of banned substances.

List of banned substances

No.	Banned substances	CAS No.	threshold concentration ppm [mg/kg]
1	Aliphatic Chlorine Hydrocarbon	refer to Annex A)	100
2	Antimony and Antimony compounds	7440-36-0	700
3	Arsenic and -compounds	7440-38-2	50
4	Asbestos	1332-21-4 refer to Annex B)	Non-use
5	Azo pigments with carcinogenic amine compounds	refer to Annex E)	20
6	Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)	68921-45-9	Non-use
7	Beryllium and Beryllium compounds	7440-41-7	1000
8	Beryllium oxide	1304-56-9	1000
9	Bisphenol A	80-05-7	Non-use
10	Bisphenol F	60-92-8	100
11	Bisphenol S	80-09-1	100
12	2-Benzotriazole	3846-71-7	Non-use
13	Cadmium and cadmium compounds(Scope: All plastic (i.e., polymeric) materials, inks, paints)	7440-43-9	5
	Cadmium and cadmium compounds(Scope: soldering tin , Plating		20
	Cadmium and cadmium compounds(Scope: All other materials)		50
14	Chlorinated Organic Solvents	Refer to Annex K	
15	Chromine (VI) and -compounds		100
16	Dimethylfumarate(DMF)	624-49-7	0.1
17	Dioxins and Furans (sum) TCDD (Seveso toxin)	refer to Annex D) 1746-01-06	Nonuse
18	Fluorochlorinated Hydrocarbons Halonic (CFC)	refer to Annex C)	Nonuse
19	Formaldehyde (measures as a compensation concentrate after testing method)	50-00-0	5
20	Hexabromocyclododecane (HBCDD): Hexabromocyclododecane, 1,2,5,6,9,10-Hexabromocyclododecane, alpha-Hexabromocyclododecane, beta-Hexabromocyclododecane, gamma-Hexabromocyclododecane;	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8	Non-use
21	Lead and lead compounds(Scope: All plastic (i.e., polymeric) materials, cable jackets and insulation, paints, inks, non-metallic, and non-ceramic coatings)	7439-92-1	50
	Lead and lead compounds(Scope: All other materials)		500
22	Mercury and -compounds	7439-97-6	10
23	Monomethyl-dibromo-diphenyl methane	99688-47-8	Non-use
24	Monomethyl-dichloro-diphenyl methane	EC:400-140-6	Non-use
25	Monomethyl-tetrachlorodiphenyl methane	76253-60-6	Non-use

No.	Banned substances	CAS No.	threshold concentration ppm [mg/kg]
26	Organic tin compounds (TBT, TPT, TBTO,DBT,DOT)		Non-use
27	Ozone depleting substances		Non-use
28	Phthalates	refer to Annex G)	800
29	Pentachlorophenol (PCP)	87-86-5	5
30	Perchlorates: -Sodium perchlorate -Potassium perchlorate -Ammonium perchlorate -Lithium perchlorate -Magnesium perchlorate	 7601-89-0 7778-74-7 7790-98-9 7791-03-9 10034-81-8	0.006
31	Perfluorooctane sulfonates(PFOS) and its compounds	refer to Annex L	Non-use
32	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	refer to Annex I	Non-use
33	Persistent organic pollutants (POP's) according to regulation (EU) No. 850/2004	refer to Annex F)	Non-use
34	Polybrominated Biphenyls (PBB)		900
35	Polybrominated Diphenylether (PBDE)		900
36	Polybrominated terphenyls (PBT)		1000
37	Polychlorinated bipheyls(PCB)		5
38	Polycyclic aromatic hydrocarbons (PAH / PAK)	Refer to Annex H	≤ 1 ppm Per individual PAH compund ≤ 10 ppm for sum PAH
39	Polychlorinated naphtaline(PCN)		5
40	Polychlorinated terphenyls (PCT)	61788-33-8	5
41	Polyvinyl chloride(PVC)	9002-86-2	<900 ppm chlorine, Cl+Br<1500ppm
42	Sodium salt, other PCP-salts and -compounds	131-52-2	5
43	Shortchained chlorinated paraffin SCCP		100
44	Tar oils	8001-58-9	Non-use
45	Ugilec and DBBT as sum (PCB replacements)		Non-use
46	Vinyl chloride (as residual monomer)	75-01-04	1
47	REACH Annex XVII https://echa.europa.eu/addressing-chemicals-of-concern/restrictions/substances-restricted-under-reach		Non-use or *valid authorization from ECHA (European Chemicals Agency)
48	Current REACH authorization list (Annex XIV) https://echa.europa.eu/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list		Non-use or *valid authorization from ECHA (European Chemicals Agency)

*in this case we need an evidence for the valid authorization from ECHA.

List of restricted substances

restricted substances	CAS No.
1,2,4-Trichlorobenzene < 1000 ppm	120-82-1
4-Oktylphenol	1806-26-4
Acetaldehyde	75-07-0
Acetamide	60-35-5
Acetonitrile	75-05-8
Acrylamide	79-06-1
Acrylonitrile	107-13-1
Alkylphenolethoxylates	
Aluminium and Aluminium compounds	7429-90-5
Ammonium perchlorate	7790-98-9
Aniline and its salts	
Anthracene	120-12-7
Antimonytrioxide	1309-64-4
Antimony trioxide in plastic materials < 1000 ppm	1309-64-4
9,10-Anthracenedione, 1-[(5,7-dichloro-1,9-dihydro-2-methyl-9-oxopyrazolo[5,1-b]quinazolin-3-yl)azo]-	74336-60-0
Aromatic amines and Aromatic Nitro compounds	
Azo and Aromatic Nitro compounds	
Azocolourants and azodyes which form certain aromatic amines < 30 ppm	
Barium and Barium compounds	7440-39-3
Benzene	71-43-2
1,4-Benzenediamine, N,N' -mixed Ph and tolyl derivs	68953-84-4
2-Benzothiazolesulphenamide, N, N-dicyclohexyl-	4979-32-2
Benzophenon	119-61-9
Benzotrichloride	98-07-7
Bis(chloromethyl) ether (BCME)	542-88-1
Biocidal coatings / biocidal additives, selected	
Bismuth and Bismuth compounds	7440-69-9
Boron and Boron compounds	7440-42-8
Bromine and Bromine compounds < 900 ppm Chlorine and Chlorine compounds < 900 ppm Total content of bromine and chlorine compounds <1500 ppm	
Butadiene, 1,3 -	106-99-0
Carcinogenic, mutagenic and reproduction toxic chemicals	
California Proposition 65 List of Chemicals https://oehha.ca.gov/proposition-65/proposition-65-list	
Carbondisulfide	75-15-0
Chlorinated flame retardants	
Chlorinated flame retardants - PWB	
Chloroaniline	106-47-8

restricted substances	CAS No.
Chromium and Chromium compounds	14639-25-9
Chloromethyl methyl ether (CMME)	107-30-2
Cobalt and Cobalt compounds	7440-48-4
Colophony (Rosin)	8052-47-9
Copper	7440-50-8
Cyclotetrasiloxane, heptamethylphenyl-	10448-09-6
Cyclotetrasiloxane, octamethyl-	556-67-2
Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl)ester	41556-26-7
Di(2-ethylhexyl)adipate	3710-84-7
Dichlorobenzidine and -salts	91-94-1
Dichloropropanol	96-23-1
Dimethoxybenzidine and -salts	119-90-4
Dimethylamidomethoxyacetat	77402-03-0
SDPA	
Disodiumtetraborates, selected	
Epichlorinehydrin > 10 ppm	106-89-8
Erionite	12510-42-8
Ethanedinitrile	460-19-5
Ethanol, 2-[(2-aminoethyl)amino]-	111-41-1
Ethylene Glycol Monoethyl Ether and -acetate	-
Ethylene Glycol Monomethyl Ether and - acetate	-
Ethylene oxide	110-82-7
Ethylenediaminetetraacetate (EDTA)	60-00-4
Ethylenenitrate	625-58-1
Fatty acids, C6-19-branched, zinc salts	68551-44-0
Fluorine and inorganic compounds	7782-41-4
Glyceroltrinitrate	55-63-0
Gold and Gold compounds	7440-57-5
Halogendiphenylmethane	
Halogennaphtalin	
Hexachlorobenzene	118-74-1
Hexachlorocyclodihexane	319-85-7
IEC 62474 Declarable Substances http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset	
Iron and Iron compounds	7439-89-6
Isocyanate	75-13-8
Lithium and Lithium compounds	7439-93-2
Manganese and Manganese compounds	7439-96-5
Medium chained chlorinated paraffines	
Methanol	67-56-1
1-Methylpyrrolidin-2-one (2-Pyrrolidinone, 1-methyl)	872-50-4

restricted substances	CAS No.
Mineral fibers (Natural or Synthetic) except, all members except: - Non-respirable fibers - Fibers with low biopersistence	
Monomethyltetrachlorodiphenylmethane	76253-60-6
Nanomaterials	
N-pentyl-isopentylphthalate	776297-69-9
Naphthalene	91-20-3
2-Naphthalenol, 1-[(4-methyl-2-nitrophenyl)azo]-	2425-85-6
n-hexane	110-54-3
4-Nitrobiphenyl and its salts	
Nitrocellulose	9004-70-0
N,N-Dimethylformamide	68-12-2
Nickel and Nickel compounds	7440-02-0
Nitrilotriacetate	80751-51-5
Nonylphenol and nonylphenol ethoxylateds < 1000 ppm	25154-52-3
7-Oxa-3,20-diazadispiro[5.1.11.2]-heneicosan-21-one, 2,2,4,4-tetramethyl-	64338-16-5
n-Propyl Bromide (nPB)/1-Bromopropane	106-94-5
Palladium and Palladium compounds	740-05-3
Pentachlorophenol	87-86-5
Phenol	108-95-2
Phenol and Azoxy compounds	108-95-2
Phenol, 2-(5-chloro-2H-benzotriazol-2-yl)-4,6-bis(1,1'-dimethylethyl)-	3864-99-1
Phenylchlorid	108-90-7
Phosphoric acid, tris(2-methylphenyl) ester	78-30-8
Polyamine Curing Agents, selected	
Phosphates and Esters	
Phosphor and Phosphor compounds	
Phosphoric acid	7664-38-2
Polychlorinated and polybrominated dioxins and furans (0 ppm)	refer to Annex J
Polyoxyethylenenonylphenylether	62654-17-5
Polyvinyl chloride (PVC) and PVC Copolymers < 1000 ppm	9002-86-2
p-Phenylenediamine	14808-60-7
Quartz	
Radioactive Substances	7782-49-2
Selenium and Selenium compounds	
Shortchain chlorinated paraffins (C10 – C13)	
Silicone gel	68952-02-3
Siloxanes and Silicones, di-Me, hydrogen-terminated	7440-22-4
Siloxanes and Silicones, Me 3,3,3-trifluoropropyl, Me vinyl,hydroxy-terminated	151-21-3
Silver and Silver compounds	100-42-5

restricted substances	CAS No.
Sodiumlaurylsulphates	96-09-3
Styrene	
Styrene oxide	
Sulfonates	
Tantalum and Tantalum compounds	7440-25-7
Tellurium and Tellurium compounds	13494-80-9
Tetrabromobisphenol A (TBBA) <**900 pppm**	79-94-7
Tetrachloroethene	127-18-4
Tetrachloroethylene	127-18-4
Thallium and Thallium compounds	7440-28-0
Tris (1,3-dichloro-2-propyl) phosphate (TDCPP) < 1000 ppm	13674-87-8
Tris (2-chloroethyl) phosphate (TCEP)	51805-45-9
Thorium oxide	
Tin and Tin compounds	7440-31-5
Titan and Titan compounds	7440-32-6
Toluen	108-88-3
Tresulfan	299-75-2
Trichloroethene	79-01-6
Trichloropropane	96-18-4
Trimethylphosphate	512-56-1
Thioperoxydicarbonic diamide ([(H2N)C(S)]2S2), tetramethyl-	137-26-8
Triorganotin compounds all members	
Triphenylphosphate	115-86-6
Tris (2-chloroethyl)phosphate	115-96-8
Tris-(1-aziridinyl)phosphine oxide	545-55-1
Tris(2,3-dibromopropy)phosphate	126-72-7
Tungsten and Tungsten compounds	7440-33-7
Vanadium and Vanadium compounds	7440-62-2
Volatile organic compounds	
Xylene	
Zinc and Zinc compounds	7440-66-6
REACH Annex XVII https://echa.europa.eu/addressing-chemicals-of-concern/restrictions/substances-restricted-under-reach	
Current REACH candidate list (SVHC substances) https://echa.europa.eu/candidate-list-table	

Annex A

Aliphatic CHCs	CAS No.
1,1,1,2-Tetrachloroethane	630-20-6
1,1,1-Trichlorethane	71-55-6
1,1,2,2-Tetrachloroethane	79-34-5
1,1,2-Trichlorethane	79-00-5
1,1-Dichlorethylen	75-35-4
Pentachloroethane	76-01-7
Tetrachloromethane	56-23-5
Trichlormethane	67-66-3

Annex B

Asbestos	CAS No.
Aktinolith	77536-66-4
Amosit	12172-73-5
Anthophyllit	77536-67-5
Chrysotil	12001-29-5
Krokydolith	12001-28-4
Raphilit	77536-66-4
Tremolit	77536-68-6

Annex C

CFCs / Halons	CAS No.
1,1,1-tribromo-2,2,2-trifluoroethane	354-48-3
1,1,1-Trichloroethane	71-55-6
1,1,1-trifluoro-2-bromoethane	421-06-7
1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1
1,1-dibromo-1,2,2,2-tetrafluoroethane	27336-23-8
1,1-dibromo-2,2-difluoroethane	359-13-3
1,1-dibromo-2,2-difluoroethylene	430-85-3
1,2,2-tribromo-3,3,3-trifluoropropane	421-90-9
1,2,2-trichloropentafluoropropane	1599-41-3
1,2,3-tribromo-3,3-difluoropropane	666-25-1
1,2-dibromo-1,1,2-trichloroethane	13749-38-7
1,2-dibromo-1,1,2-trifluoroethane	354-04-1
1,2-dibromo-1,1-difluoroethane	75-82-1
1,2-dibromo-1-chloro-1,2,2-trifluoroethane	354-51-8
1,2-dibromo-1-fluoroethane	358-97-4
1,2-dibromotetrachloroethane	76-12-0
1,2-dibromotetrachloroethane	630-25-1
1,2-dibromotetrafluoroethane	124-73-2
1,2-dichloro-1,1,2,3,3,3-hexafluoropropane	661-97-2

CFCs / Halons	CAS No.
1,3-dibromo-1,1,3,3-tetrafluoropropane	460-86-6
1,3-dibromo-1,1-difluoropropane	460-25-3
1-bromo-1,1,2,3,3,3-hexafluoropropane	2252-78-0
1-bromo-1,1-difluoroethane	420-47-3
1-bromo-1-chloro-2,2-difluoroethylene	758-24-7
1-bromo-2-chloro-1,1,2-trifluoroethane	354-06-3
1-bromo-2-fluoroethane	762-49-2
1-bromo-2-fluoropropane	1871-72-3
1-bromo-3-fluoropropane	352-91-0
2,3-dibromo-1,1,1-trifluoropropane	431-21-0
2-bromo-1,1-dichloroethylene	5870-61-1
2-bromo-1-chloro-1,1,2-trifluoroethane	354-20-1
2-bromo-2-chloro-1,1,1-trifluoroethane	51230-17-2
2-bromo-2-chloro-1,1,1-trifluoroethane	51230-18-3
3-bromo-1,1,1-trifluoropropane	460-32-2
Bromchloridedifluoromethane (Halon1211)	353-59-3
Bromo-1,1-difluoroethane $C_2H_3F_2Br$	359-07-9
Bromochlorodifluoromethane	353-59-3
Bromodichlorofluoromethane	353-58-2
Bromofluoromethane	373-52-4
Bromopentafluoroethane	354-55-2
Bromotrichloromethane	75-62-7
Bromotrifluoroethylene	598-73-2
Bromotrifluoromethane (Halon 1301)	75-63-8
$C_2H_2FBr_3$	598-67-4 420-88-2
$C_2HF_2Br_3$	7304-53-2 677-34-9 353-97-9
C_2HFBr_4	353-93-5 306-80-9
$C_3H_2F_2Br_4$	148875-98-3
$C_3H_2F_5Br$	422-01-5 677-52-1 677-53-2 22692-16-6 460-88-8 679-94-7 26391-11-7 53692-43-6 53692-44-7
$C_3H_2FBr_5$	-
$C_3H_3F_4Br$	19041-01-1 29151-25-5 679-84-5 70192-71-1 70192-84-6 460-67-3

CFCs / Halons	CAS No.
$C_3H_3FBr_4$	148875-95-0
$C_3H_4FBr_3$	75372-14-4
$C_3H_5F_2Br$	111483-20-6 430-87-5 420-89-3 420-98-4 2195-05-3 461-49-4
$C_3H_5FBr_2$	453-00-9 1786-38-5 51584-26-0 62135-10-8 62135-11-9
$C_3HF_2Br_5$	-
$C_3HF_3Br_4$	-
$C_3HF_4Br_3$	666-48-8
C_3HFBr_6	-
Carbon tetrabromide	558-13-4
Carbon tetrachloride	56-23-5
Chlorinedifluoromethane (R22)	75-45-6
Chlorinepentafluoroethane (R115)	76-12-0
Chlorinetrifluoromethane (R13)	75-72-9
Chlorobromomethane	74-97-5
Chlorobromomethane	74-97-5
Chlorobromotrifluoroethane	74925-63-6
Chlorodibromomethane	124-48-1
Chlorodifluorobromomethane	353-59-3
Dibromodichloromethane	594-18-3
Dibromofluoromethane	1868-53-7
Dibromotetrafluoroethane	25497-30-7
Dibromotetrafluoroethane (Halon 2404)	124-73-2
Dibromtetrafluoroethane (Halon 2402)	124-73-2
Dichlorinedifluoromethane (R12)	75-71-8
Dichlorinetetrafluoroethane (R114)	76-14-2
Dichlorotetrafluoroethane	1320-37-2
Difluorodibromomethane	75-61-6
Heptachlorofluoropropane	422-78-6
Heptafluoropropylchloride	422-86-6
Hexachlorodifluoropropane	134452-44-1
Methylbromide	74-83-9
Methylbromide (Bromomethane)	74-83-9
Monochloropentafluodroethane	76-15-3
Pentabromoethane	75-95-6
Pentachlorofluoroethane	354-56-3
Pentachlorotrifluoropropane	2354-06-5
Tetrabromoethene	79-28-7

CFCs / Halons	CAS No.
Tetrachloridefluoroethane (R112)	76-11-9
Tetrachlorotetrafluoropropane	29255-31-0
Tribromochloromethane	594-15-0
Tribromoethane	598-16-3
Tribromofluoromethane	353-54-8
Trichloridefluoroethane (R113)	76-13-1
Trichlorinefluoromethane (R11)	75-69-4
Trifluorobromomethane	75-63-8

Annex D

Dioxins and Furans	CAS No.
(2',7'-Dibromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-4'-yl)hydroxymercury	55728-51-3
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9
1,2,3,4,7,8,9-Hexachlorodibenzofuran	55673-89-7
1,2,3,4,7,8-Hexa BDD	110999-44-5
1,2,3,4,7,8-Hexachloro dibenzofuran	70648-26-9
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6
1,2,3,6,7,8-Hexa BDD	110999-45-6
1,2,3,6,7,8-Hexa-CDD	57653-85-7
1,2,3,6,7,8-Hexa-CDF	57117-44-9
1,2,3,6,7,8-Hexachloro dibenzofuran	57117-44-9
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7
1,2,3,7,8,9-Hexa BDD	110999-46-7
1,2,3,7,8,9-Hexa-CDD	19408-74-3
1,2,3,7,8,9-Hexachloro dibenzofuran	72918-21-9
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3
1,2,3,7,8-Penta BDD	109333-34-8
1,2,3,7,8-Penta BDF	109333-34-8
1,2,3,7,8-Penta-CDD	40321-76-4
1,2,3,7,8-Pentachloro dibenzofuran	57117-41-6
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4
1,3-Isobenzofurandione, 4,5,6,7-tetrabromo-	632-79-1
2,3,4,6,7,8-Hexachloro dibenzofurans	60851-34-5
2,3,4,7,8-Penta BDF	131166-92-2
2,3,4,7,8-Penta-CDF	57117-31-4
2,3,4,7,8-Pentachloro dibenzofurans	57117-31-4
2,3,7,8-Tetra BDD	50585-81-6
2,3,7,8-Tetra BDF	67733-57-7
2,3,7,8-Tetra-CDD	1746-01-6
2,3,7,8-Tetrachloro dibenzofurans	51207-31-9
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6
2',7'-Dibrom-4'-(hydroxymercuri)fluorescein	129-16-8
2,7-Dichlorodibenzo-p-dioxin	33857-26-0
Hexachlorodibenzodioxin	34465-46-8
Nickel,[6,8,16,18-tetrachloro-1,11-bis(2-furanylmethyl)-1,10,11, 20-tetrahydrodibenzo[c,j]dipyrazolo[3,4-f:3',4'-m][1,2,5,8,9,12] hexaazacyclotetradecinato(2-)-N5,N10,N15,N20]-	79745-01-0
Octachlorodibenzofuran	39001-02-0
Octachlorodibenzo-p-dioxin	3268-87-9
Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 2',4',5',7'-tetrabromo-3',6'-dihydroxy-, lead salt	1326-05-2

Annex E

Azo pigments with carcinogenic amine compounds	CAS No.
2,4,5-Trimethylaniline	137-17-7
2,4-Diaminoanisole	615-05-4
2,4-Toluylendiamine	95-80-7
2-Amino-4-nitrotoluene	99-55-8
2-Naphthylamine	91-59-8
3,3'-Dichlorbenzidine	91-94-1
3,3'-Dimethoxybenzidine	119-90-4
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0
3,3'-Dimethylbenzidine	119-93-7
4,4'-Diaminodiphenylmethane	101-77-9
4,4'-Methylen-bis-(2-chloraniline)	101-14-4
4,4'-Thiodianiline	139-65-1
4,4-Oxydianiline	101-80-4
4-Aminoazobenzene	60-09-3
4-Aminodiphenyl	92-67-1
4-Chlor-o-toludine	95-69-2
Benzidine	92-87-5
o-Aminoazotoluene	97-56-3
o-Anisidine	90-04-0
o-Toluidine	95-53-4
p-Chloraniline	106-47-8
p-Cresidine	120-71-8

Annex F

POP's	CAS No.	EC No.
Aldrin	309-00-2	206-215-8
Chlordane	57-74-9	200-349-0
Chlordecone	143-50-0	205-601-3
Dieldrin	60-57-1	200-484-5
DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)	50-29-3	200-024-3
Endrin	72-20-8	200-775-7
HCH, including lindane	608-73-1, 58-89-9	210-168-9 200-401-2
Heptachlor	76-44-8	200-962-3
Hexabromobiphenyl	36355-01-8	252-994-2
Hexachlorobenzene	118-74-1	200-273-9
Mirex	2385-85-5	219-196-6
Polychlorinated Biphenyls (PCB)	1336-36-3 and others	215-648-1 and others
Toxaphene	8001-35-2	232-283-3

Annex G

Phthalates	CAS No.
Benzyl butyl phthalate (BBP)	85-68-7
Di-n-butyl phthalate (DBP)	84-74-2 and 201-557-4
Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7
Diisobutyl phthalate (DIBP)	84-69-5
Di-isodecyl phthalate (DIDP)	68515-49-1 and 26761-40-0
Di-n-hexyl phthalate (DnHP)	84-75-3
Di-n-Octyl phthalate (DNOP)	117-84-0
Diisononyl phthalate (DINP)	68515-48-0 and 28553-12-0
Bis (2-methoxyethyl) phthalate (DMEP)	117-82-8
Diethyl phthalate (DEP)	84-66-2
Dimethyl phthalate (DMP),	131-11-3
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP),	71888-89-6
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP),	68515-42-4
Di-iso-pentyl phthalate (DIPP),	605-50-5
Di-n-pentyl phthalate (DnPP)	131-18-0
n-Pentyl-isopentyl phthalate (nPIPP)	776297-69-9
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DPP),	84777-06-0
di-hexylphthalate, branched and linearm (DHxP)	68515-50-4
1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-Benzenedicarboxylic acid, mixed	68515-51-5
decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68648-93-1
Di-iso-hexylphthalate (DIHxP)	71850-09-4
Di-n-nonylphthalate (DNP)	84-76-4

Annex H

Polycyclic Aromatic Hydrocarbons (PAH)	CAS No.
Acenaphthylene	208-96-8
Acenaphthene	83-32-9
Anthracene	120-12-7
Benzo[a]anthracene	56-55-3
Benzo[a]phenanthrene or chrysene	218-01-9
Benzo[a]pyrene	50-32-8
Benzo[b]fluoranthene	205-99-2
Benzo[e]pyrene	192-97-2
Benzo[g,h,i]perylene	191-24-2
Benzo[j]fluoranthene	205-82-3
Benzo[k]fluoranthene	207-08-9
Benzo[j,k]fluorene or fluoranthene	206-44-0
Dibenzo[a,h]anthracene	53-70-3
Fluorene	86-73-7
Indeno[1,2,3-cd]pyrene	193-39-5
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0
Benzo(r,s,t)pentaphene	189-55-9
Dibenz(a,h)acridine	226-36-8
Dibenz(a,j)acridine	224-42-0
Dibenzo(a,e)fluoranthene	5385-75-1
Dibenzo(a,e)pyrene	192-65-4
Dibenzo(a,h)pyrene	189-64-0
Dibenzo(a,l)pyrene	191-30-0
7H-Dibenzo(c,g)carbazole	194-59-2
5-Methylchrysene	3697-24-3
Cyclopenta[c,d]pyrene	27208-37-3
1-methylpyrene	2381-21-7

Annex I

Perfluorooctanic acid (PFOA) and individual salts and esters of PFOA	CAS No.	EC No.
Ammoniumpentadecafluorooctanoate	3825-26-1	223-320-4
Ethyl pentadecafluorooctanoate	3108-24-5	221-468-4
Methyl pentadecafluorooctanoate	376-27-2	206-808-1
Pentadecafluorooctanoylfluorid	335-66-0	206-396-3
Perfluorooctanic acid	335-67-1	206-397-9
Potassiumpentadecafluorooctanoate	2395-00-8	219-248-8
Silverpentadecafluorooctanoate	335-93-3	-
Sodiumpentadecafluorooctanoate	335-95-5	206-404-5

Annex J

Polychlorinated and polybrominated dioxins and furans	CAS No.	EC No.
1,2,3,4,6,7,8,9-Octa-CDD	3268-87-9	-
1,2,3,4,6,7,8,9-Octa-CDF	39227-28-6	-
1,2,3,4,6,7,8-Hepta-CDD	35822-46-9	-
1,2,3,4,6,7,8-Hepta-CDF	67562-39-4	-
1,2,3,4,7,8,9-Hepta-CDF	55673-89-7	-
1,2,3,4,7,8-Hexa-BDD	110999-44-5	-
1,2,3,4,7,8-Hexa-CDD	39001-02-0	-
1,2,3,4,7,8-Hexa-CDF	70648-26-9	-
1,2,3,6,7,8-Hexa-BDD	110999-45-6	-
1,2,3,6,7,8-Hexa-CDD	57653-85-7	-
1,2,3,6,7,8-Hexa-CDF	57117-44-9	-
1,2,3,7,8,9-Hexa-BDD	110999-46-7	-
1,2,3,7,8,9-Hexa-CDD	19408-74-3	-
1,2,3,7,8,9-Hexa-CDF	72918-21-9	-
1,2,3,7,8-Penta-BDD	109333-34-8	-
1,2,3,7,8-Penta-BDF	109333-34-8	-
1,2,3,7,8-Penta-CDD	40321-76-4	-
1,2,3,7,8-Penta-CDF	57117-41-6	-
2,3,4,6,7,8-Hexa-CDF	60851-34-5	-
2,3,4,7,8-Penta-BDF	131166-92-2	-
2,3,4,7,8-Penta-CDF	57117-31-4	-
2,3,7,8-Tetra-BDD	50585-81-6	-
2,3,7,8-Tetra-BDF	67733-57-7	-
2,3,7,8-Tetra-CDD	1746-01-6	217-122-7
2,3,7,8-Tetra-CDF	51207-31-9	-

Annex K

Chlorinated Organic Solvents	CAS No.	EC No.
Bromodichloromethane	75-27-4	-
Carbon tetrachloride	56-23-5	-
Chloroform	67-66-3	-
Dibromochloromethane	124-48-1	-
Methylene chloride	75-09-2	-
Methyl chloride	74-87-3	-
Chloroethane	75-00-3	-
1,1-Dichloroethane	75-34-3	-
1,2-Dichloroethane	107-06-02	-
Hexachloroethane	67-72-1	-
Pentachloroethane	76-01-7	-
1,1,1,2-Tetrachloroethane	630-20-6	-
1,1,2,2-Tetrachloroethane	79-34-5	-
1,1,1-Trichloroethane	71-55-6	-
1,1,2-Trichloroethane	79-00-5	-
1,1-Dichloroethylene	75-35-4	-
1,2-Dichloroethylene	540-59-0	-
cis-1,2-Dichloroethylene	156-59-2	-
trans-1,2-Dichloroethylene	156-60-5	-
Tetrachloroethylene	127-18-4	-
Trichloroethylene	79-01-6	-

Annex L

Perfluorooctane Sulfonates (PFOS) and its compounds	CAS No.	EC No.
PFOS Tetraethylammonium salt	144089-15-6	-
N-ethylheptadecafluoro-n-(2-	1691-99-2	-
Perfluorooctane sulfonic acid	1763-23-1	-
N-[(heptadecafluorooctyl)sulfonyl]-n-methyl-glycine	2355-31-9	-
Heptadecafluoro-n-(2-hydroxyethyl)-n-	24448-09-7	-
1-Decanaminium, N-decyl-N,N-dimethyl-,	251099-16-8	-
Potassium perfluorooctanesulfonate	2795-39-3	-
Perfluorooctane sulfonamidoacetic acid	2806-24-8	-
Ammonium heptadecafluorooctanesulphonate	29081-56-9	-
Lithium perfluorooctane sulfonate	29457-72-5	-
N-ethyl-n-((heptadecafluorooctyl)sulfonyl)-glycine	2991-50-6	-
Perfluorooctanesulfonyl fluoride	307-35-7	-
Heptadecafluoro-N-methyloctanesulphonamide	31506-32-8	-
PFOS Sodium Salt	4021-47-0	-
PFOS Ion	45298-90-6	-
Tetraethylammonium perfluoroctanesulfonate	56773-42-3	-
diethanolamine perfluorooctanesulfonate	70225-39-5	-
Perfluorooctanesulfonamide	754-91-6	-