



# Test Report

No.: ETR22402826

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UBE CORPORATION  
1978-10, KOGUSHI, UBE, YAMAGUCHI, 755-8633, JAPAN

The following sample(s) was/were submitted and identified by the applicant as:

Sample Submitted By : UBE CORPORATION  
Sample Name : UPILEX-VT SERIES

Sample Receiving Date : 15-Apr-2022  
Testing Period : 15-Apr-2022 to 26-Apr-2022

Test Requested : (1) As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).  
(2) As specified by client, the sample(s) was/were tested for 5 PBTs with reference to Regulation of Persistent, Bioaccumulative, Toxic (PBT) Chemicals under Toxic Substances Control Act (TSCA) Section 6(h). Please refer to result table for testing item(s).  
(3) As specified by client, to test PAHs and other item(s).  
Test Results : Please refer to following pages.  
Conclusion : (3) Based upon the performed tests on the submitted sample(s), the test results of PAHs (15 items) comply with the limits of PAHs requirement (Category 3) 「Other consumer products」 as set by German Committee on Product Safety (AfPS) GS PAHs.

Troy Chang

Troy Chang / Department Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



PIN CODE: 445F4ACB

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## Test Part Description

No.1 : TRANSPARENT-BROWN PLASTIC FILM

## Test Result(s)

Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Cadmium (Cd) (CAS No.: 7440-43-9)	With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Lead (Pb) (CAS No.: 7439-92-1)	With reference to IEC 62321-5: 2013, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Mercury (Hg) (CAS No.: 7439-97-6)	With reference to IEC 62321-4: 2013+ AMD1: 2017, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Hexavalent Chromium Cr(VI) (CAS No.: 18540-29-9)	With reference to IEC 62321-7-2: 2017, analysis was performed by UV-VIS.	mg/kg	8	n.d.	-
Monobromobiphenyl	With reference to IEC 62321-6: 2015, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Dibromobiphenyl		mg/kg	5	n.d.	-
Tribromobiphenyl		mg/kg	5	n.d.	-
Tetrabromobiphenyl		mg/kg	5	n.d.	-
Pentabromobiphenyl		mg/kg	5	n.d.	-
Hexabromobiphenyl		mg/kg	5	n.d.	-
Heptabromobiphenyl		mg/kg	5	n.d.	-
Octabromobiphenyl		mg/kg	5	n.d.	-
Nonabromobiphenyl		mg/kg	5	n.d.	-
Decabromobiphenyl		mg/kg	5	n.d.	-
Sum of PBBs		mg/kg	-	n.d.	-
Monobromodiphenyl ether		mg/kg	5	n.d.	-
Dibromodiphenyl ether		mg/kg	5	n.d.	-
Tribromodiphenyl ether		mg/kg	5	n.d.	-
Tetrabromodiphenyl ether		mg/kg	5	n.d.	-
Pentabromodiphenyl ether		mg/kg	5	n.d.	-
Hexabromodiphenyl ether		mg/kg	5	n.d.	-
Heptabromodiphenyl ether		mg/kg	5	n.d.	-
Octabromodiphenyl ether		mg/kg	5	n.d.	-
Nonabromodiphenyl ether		mg/kg	5	n.d.	-
Decabromodiphenyl ether		mg/kg	5	n.d.	-
Sum of PBDEs		mg/kg	-	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Polychlorinated biphenyls (PCBs)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	0.5	n.d.	-
Polychlorinated naphthalene (PCNs)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Polychlorinated terphenyls (PCTs)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	0.5	n.d.	-
Short Chain Chlorinated Paraffins(C10-C13) (SCCP) (CAS No.: 85535-84-8)	With reference to ISO 18219: 2015, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Formaldehyde (CAS No.: 50-00-0)	With reference to ISO 17226-1: 2021, analysis was performed by LC/DAD.	mg/kg	3	n.d.	-
Polyvinyl chloride (PVC)	With reference to ASTM E1252: 2013, analysis was performed by FT-IR and Flame Test.	**	-	Negative	-
<b>Asbestos</b>					
Actinolite (CAS No.: 77536-66-4)	With reference to EPA 600/R-93/116: 1993, analysis was performed by Stereo Microscope (SM), Dispersion Staining Polarized Light Microscope (DS-PLM) and X-ray Diffraction Spectrometer (XRD).	-	-	Negative	-
Amosite (CAS No.: 12172-73-5)		-	-	Negative	-
Anthophyllite (CAS No.: 77536-67-5)		-	-	Negative	-
Chrysotile (CAS No.: 12001-29-5)		-	-	Negative	-
Crocidolite (CAS No.: 12001-28-4)		-	-	Negative	-
Tremolite (CAS No.: 77536-68-6)		-	-	Negative	-
4-aminodiphenyl (CAS No.: 92-67-1)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
Benzidine (CAS No.: 92-87-5)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4-chloro-o-toluidine (CAS No.: 95-69-2)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2-naphthylamine (CAS No.: 91-59-8)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
o-aminoazotoluene (CAS No.: 97-56-3)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
5-nitro-o-toluidine (CAS No.: 99-55-8)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4-chloroaniline (CAS No.: 106-47-8)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2,4-diaminoanisole (CAS No.: 615-05-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4,4'-diaminodiphenylmethane (MDA) (CAS No.: 101-77-9)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
3,3'-dichlorobenzidine (CAS No.: 91-94-1)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
3,3'-dimethoxybenzidine (CAS No.: 119-90-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
3,3'-dimethylbenzidine (CAS No.: 119-93-7)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
3,3'-dimethyl-4,4'-diaminodiphenylmethane (CAS No.: 838-88-0)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2-methoxy-5-methylaniline (CAS No.: 120-71-8)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4,4'-methylene-bis-(2-chloroaniline) (CAS No.: 101-14-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
4,4'-thiodianiline (CAS No.: 139-65-1)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
o-toluidine (CAS No.: 95-53-4)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2,4-diaminotoluene (CAS No.: 95-80-7)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2,4,5-trimethylaniline (CAS No.: 137-17-7)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
o-anisidine (CAS No.: 90-04-0)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
4-aminoazobenzene (CAS No.: 60-09-3)	With reference to EN ISO 14362-1: 2017 or/and EN ISO 14362-3: 2017, analysis was performed by GC/MS & HPLC/DAD.	mg/kg	3	n.d.	-
2,4-xylydine (CAS No.: 95-68-1)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
2,6-xylydine (CAS No.: 87-62-7)	With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.	mg/kg	3	n.d.	-
Beryllium (Be) (CAS No.: 7440-41-7)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Beryllium oxide (BeO) (CAS No.: 1304-56-9)	Calculated from the result of Beryllium.	mg/kg	2▲	n.d.	-
Cobalt dichloride (CoCl <sub>2</sub> ) (CAS No.: 7646-79-9)	Analysis was performed by ICP-OES, IC. Calculated from the results of Cobalt, Chlorine.	mg/kg	50▲	n.d.	-
Cobalt (Co) (CAS No.: 7440-48-4)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Dimethyl fumarate (DMFu) (CAS No.: 624-49-7)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	0.1	n.d.	-
Tris(2-chloroethyl) phosphate (TCEP) (CAS No.: 115-96-8)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Tris(1-chloro-2-propyl) phosphate (TCPP) (CAS No.: 13674-84-5)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Tris(1,3-dichloro-2-propyl) phosphate (CAS No.: 13674-87-8)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ - HBCDD, $\beta$ - HBCDD, $\gamma$ - HBCDD) (CAS No.: 25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	With reference to IEC 62321: 2008, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Perchlorate (CAS No.: 14797-73-0)	Analysis was performed by IC.	$\mu$ g/g	0.006	n.d.	-
Tributyl tin (TBT)	With reference to ISO 17353: 2004, analysis was performed by GC/FPD.	mg/kg	0.03	n.d.	-
Triphenyl tin (TPT)		mg/kg	0.03	n.d.	-
Dibutyl tin (DBT)		mg/kg	0.03	n.d.	-
Dioctyl tin (DOT)		mg/kg	0.03	n.d.	-
Di-(2-ethylhexyl) phthalate (DEHP) (CAS No.: 117-81-7)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Dibutyl phthalate (DBP) (CAS No.: 84-74-2)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Butyl benzyl phthalate (BBP) (CAS No.: 85-68-7)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Diisononyl phthalate (DINP) (CAS No.: 28553-12-0, 68515-48-0)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Diisodecyl phthalate (DIDP) (CAS No.: 26761-40-0, 68515-49-1)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Di-n-octyl phthalate (DNOP) (CAS No.: 117-84-0)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Diisobutyl phthalate (DIBP) (CAS No.: 84-69-5)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Di-n-hexyl phthalate (DNHP) (CAS No.: 84-75-3)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
<b>Chlorofluorocarbons (CFCs)</b>					
CFC-13 (CAS No.: 75-72-9)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
CFC-111 (CAS No.: 354-56-3)		mg/kg	1	n.d.	-
CFC-112 (CAS No.: 76-12-0)		mg/kg	1	n.d.	-
CFC-211 (CAS No.: 422-78-6)		mg/kg	1	n.d.	-
CFC-212 (CAS No.: 3182-26-1)		mg/kg	1	n.d.	-
CFC-213 (CAS No.: 2354-06-5)		mg/kg	1	n.d.	-
CFC-214 (CAS No.: 29255-31-0)		mg/kg	1	n.d.	-
CFC-215 (CAS No.: 4259-43-2)		mg/kg	1	n.d.	-
CFC-216 (CAS No.: 661-97-2)		mg/kg	1	n.d.	-
CFC-217 (CAS No.: 422-86-6)		mg/kg	1	n.d.	-
CFC-12 (CAS No.: 75-71-8)		mg/kg	1	n.d.	-
CFC-11 (CAS No.: 75-69-4)		mg/kg	1	n.d.	-
CFC-115 (CAS No.: 76-15-3)		mg/kg	1	n.d.	-
CFC-114 (CAS No.: 76-14-2)		mg/kg	1	n.d.	-
CFC-113 (CAS No.: 76-13-1)		mg/kg	1	n.d.	-
<b>Hydrochlorofluorocarbons (HCFCs)</b>					
HCFC-21 (CAS No.: 75-43-4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-22 (CAS No.: 75-45-6)		mg/kg	1	n.d.	-
HCFC-31 (CAS No.: 593-70-4)		mg/kg	1	n.d.	-
HCFC-121 (CAS No.: 354-14-3)		mg/kg	1	n.d.	-
HCFC-122 (CAS No.: 354-21-2)		mg/kg	1	n.d.	-
HCFC-123 (CAS No.: 306-83-2)		mg/kg	1	n.d.	-
HCFC-124 (CAS No.: 2837-89-0)		mg/kg	1	n.d.	-
HCFC-131 (CAS No.: 359-28-4)		mg/kg	1	n.d.	-
HCFC-132b (CAS No.: 1649-08-7)		mg/kg	1	n.d.	-
HCFC-133a (CAS No.: 75-88-7)		mg/kg	1	n.d.	-
HCFC-142b (CAS No.: 75-68-3)		mg/kg	1	n.d.	-
HCFC-221 (CAS No.: 422-26-4)		mg/kg	1	n.d.	-
HCFC-222 (CAS No.: 422-49-1)		mg/kg	1	n.d.	-
HCFC-223 (CAS No.: 422-52-6)		mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
HCFC-224 (CAS No.: 422-54-8)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HCFC-225ca (CAS No.: 422-56-0)		mg/kg	1	n.d.	-
HCFC-225cb (CAS No.: 507-55-1)		mg/kg	1	n.d.	-
HCFC-226 (CAS No.: 431-87-8)		mg/kg	1	n.d.	-
HCFC-231 (CAS No.: 421-94-3)		mg/kg	1	n.d.	-
HCFC-232 (CAS No.: 460-89-9)		mg/kg	1	n.d.	-
HCFC-233 (CAS No.: 7125-84-0)		mg/kg	1	n.d.	-
HCFC-234 (CAS No.: 425-94-5)		mg/kg	1	n.d.	-
HCFC-235 (CAS No.: 460-92-4)		mg/kg	1	n.d.	-
HCFC-241 (CAS No.: 666-27-3)		mg/kg	1	n.d.	-
HCFC-242 (CAS No.: 460-63-9)		mg/kg	1	n.d.	-
HCFC-244		mg/kg	1	n.d.	-
HCFC-251 (CAS No.: 421-41-0)		mg/kg	1	n.d.	-
HCFC-252 (CAS No.: 819-00-1)		mg/kg	1	n.d.	-
HCFC-261 (CAS No.: 420-97-3)		mg/kg	1	n.d.	-
HCFC-262 (CAS No.: 421-02-03)		mg/kg	1	n.d.	-
HCFC-271 (CAS No.: 430-55-7)		mg/kg	1	n.d.	-
HCFC-141b (CAS No.: 1717-00-6)		mg/kg	1	n.d.	-
HCFC-243 (CAS No.: 460-69-5)		mg/kg	1	n.d.	-
HCFC-253 (CAS No.: 460-35-5)		mg/kg	1	n.d.	-
HCFC-141		mg/kg	1	n.d.	-
HCFC-142		mg/kg	1	n.d.	-
HCFC-151		mg/kg	1	n.d.	-
HCFC-225		mg/kg	1	n.d.	-
<b>Halons</b>					
Halon-1211 (CAS No.: 353-59-3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Halon-1301 (CAS No.: 75-63-8)		mg/kg	1	n.d.	-
Halon-2402 (CAS No.: 124-73-2)		mg/kg	1	n.d.	-
Bromomethane (CAS No.: 74-83-9)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
<b>Hydrobromofluorocarbons (HBFCs)</b>					
HBFC-271B1 (C3H6FBr)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-262B1 (C3H5F2Br)		mg/kg	1	n.d.	-
HBFC-261B2 (C3H5FBr2)		mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
HBFC-253B1 (C3H4F3Br)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HBFC-252B2 (C3H4F2Br2)		mg/kg	1	n.d.	-
HBFC-251B3 (C3H4FBr3)		mg/kg	1	n.d.	-
HBFC-244B1 (C3H3F4Br)		mg/kg	1	n.d.	-
HBFC-243B2 (C3H3F3Br2)		mg/kg	1	n.d.	-
HBFC-242B3 (C3H3F2Br3)		mg/kg	1	n.d.	-
HBFC-241B4 (C3H3FBr4)		mg/kg	1	n.d.	-
HBFC-235B1 (C3H2F5Br)		mg/kg	1	n.d.	-
HBFC-234B2 (C3H2F4Br2)		mg/kg	1	n.d.	-
HBFC-233B3 (C3H2F3Br3)		mg/kg	1	n.d.	-
HBFC-232B4 (C3H2F2Br4)		mg/kg	1	n.d.	-
HBFC-231B5 (C3H2FBr5)		mg/kg	1	n.d.	-
HBFC-226B1 (C3HF6Br)		mg/kg	1	n.d.	-
HBFC-225B2 (C3HF5Br2)		mg/kg	1	n.d.	-
HBFC-224B3 (C3HF4Br3)		mg/kg	1	n.d.	-
HBFC-223B4 (C3HF3Br4)		mg/kg	1	n.d.	-
HBFC-222B5 (C3HF2Br5)		mg/kg	1	n.d.	-
HBFC-221B6 (C3HFBr6)		mg/kg	1	n.d.	-
HBFC-151B1 (C2H4FBr)		mg/kg	1	n.d.	-
HBFC-142B1 (C2H3F2Br)		mg/kg	1	n.d.	-
HBFC-141B2 (C2H3FBr2)		mg/kg	1	n.d.	-
HBFC-133B1 (C2H2F3Br)		mg/kg	1	n.d.	-
HBFC-132B2 (C2H2F2Br2)		mg/kg	1	n.d.	-
HBFC-131B3 (C2H2FBr3)		mg/kg	1	n.d.	-
HBFC-124B1 (C2HF4Br)		mg/kg	1	n.d.	-
HBFC-123B2 (C2HF3Br2)		mg/kg	1	n.d.	-
HBFC-122B3 (C2HF2Br3)		mg/kg	1	n.d.	-
HBFC-121B4 (C2HFBr4)		mg/kg	1	n.d.	-
HBFC-31B1 (CH2FBr) (CAS No.: 373-52-4)		mg/kg	1	n.d.	-
HBFC-22B1 (CHF2Br) (CAS No.: 1511-62-2)		mg/kg	1	n.d.	-
HBFC-21B2 (CHFBr2) (CAS No.: 1868-53-7)		mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
<b>Chlorinate hydrocarbon (CHCs)</b>					
1,1-Dichloropropene (CAS No.: 563-58-6)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1,2-Dichloroethane (CAS No.: 107-06-2)		mg/kg	1	n.d.	-
2,2-Dichloropropane (CAS No.: 594-20-7)		mg/kg	1	n.d.	-
Carbon tetrachloride (CAS No.: 56-23-5)		mg/kg	1	n.d.	-
Chloromethane (CAS No.: 74-87-3)		mg/kg	1	n.d.	-
cis-1,2-Dichloroethene (CAS No.: 156-59-2)		mg/kg	1	n.d.	-
cis-1,3-Dichloropropene (CAS No.: 10061-01-5)		mg/kg	1	n.d.	-
Hexachlorobutadiene (CAS No.: 87-68-3)		mg/kg	1	n.d.	-
trans-1,2-Dichloroethene (CAS No.: 156-60-5)		mg/kg	1	n.d.	-
trans-1,3-Dichloropropene (CAS No.: 10061-02-6)		mg/kg	1	n.d.	-
Dichloromethane, Methylene chloride (CAS No.: 75-09-2)		mg/kg	1	n.d.	-
1,2-Dichloropropane (CAS No.: 78-87-5)		mg/kg	1	n.d.	-
1,1,1,2-Tetrachloroethane (CAS No.: 630-20-6)		mg/kg	1	n.d.	-
1,1,1-Trichloroethane (CAS No.: 71-55-6)		mg/kg	1	n.d.	-
1,1,2-Trichloroethane (CAS No.: 79-00-5)		mg/kg	1	n.d.	-
1,1,2,2-Tetrachloroethane (CAS No.: 79-34-5)		mg/kg	1	n.d.	-
1,1-Dichloroethylene (CAS No.: 75-35-4)		mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
1,1-Dichloroethane (CAS No.: 75-34-3)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Chloroethane (CAS No.: 75-00-3)		mg/kg	1	n.d.	-
Tetrachloroethene (CAS No.: 127-18-4)		mg/kg	1	n.d.	-
Trichloroethylene (CAS No.: 79-01-6)		mg/kg	1	n.d.	-
1,3-Dichloropropane (CAS No.: 142-28-9)		mg/kg	1	n.d.	-
Chloroform (CAS No.: 67-66-3)		mg/kg	1	n.d.	-
1,2,3-Trichloropropane (CAS No.: 96-18-4)		mg/kg	1	n.d.	-
Hydrofluorocarbon (HFCs)					
HFC-23 (CHF3) (CAS No.: 75-46-7)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
HFC-32 (CH2F2) (CAS No.: 75-10-5)		mg/kg	1	n.d.	-
HFC-41 (CH3F) (CAS No.: 593-53-3)		mg/kg	1	n.d.	-
HFC-43-10mee (C5H2F10)		mg/kg	1	n.d.	-
HFC-125 (C2HF5)		mg/kg	1	n.d.	-
HFC-134 (C2H2F4)		mg/kg	1	n.d.	-
HFC-134a (CH2FCF3) (CAS No.: 811-97-2)		mg/kg	1	n.d.	-
HFC-143 (CH3F3)		mg/kg	1	n.d.	-
HFC-143a (CH3F3)		mg/kg	1	n.d.	-
HFC-152a (C2H4F2) (CAS No.: 75-37-6)		mg/kg	1	n.d.	-
HFC-227ea (C3HF7) (CAS No.: 431-89-0)		mg/kg	1	n.d.	-
HFC-236fa (CAS No.: 431-63-0)		mg/kg	1	n.d.	-
HFC-245ca (C3H3F5)		mg/kg	1	n.d.	-
HFC-245fa (C3H3F5)		mg/kg	1	n.d.	-
HFC-365mfc (C4H5F5)	mg/kg	1	n.d.	-	
HFC-236ea (C3H2F6) (CAS No.: 431-63-0)	mg/kg	1	n.d.	-	

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
<b>Perfluorocarbon (PFCs)</b>					
1,4-dihydrooctafluorobutane (CAS No.: 377-36-6)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
2-Perfluoromethylpentane (CAS No.: 355-04-4)		mg/kg	1	n.d.	-
Decafluorobutane (CAS No.: 355-25-9)		mg/kg	1	n.d.	-
F14 (CAS No.: 75-73-0)		mg/kg	1	n.d.	-
Fluorocarbon 116 (CAS No.: 76-16-4)		mg/kg	1	n.d.	-
Freon 218 (CAS No.: 76-19-7)		mg/kg	1	n.d.	-
Freon C318 (CAS No.: 115-25-3)		mg/kg	1	n.d.	-
Nonafluor-2- (trifluoromethyl)butane (CAS No.: 594-91-2)		mg/kg	1	n.d.	-
Perfluorisobutene (CAS No.: 382-21-8)		mg/kg	1	n.d.	-
Perfluorohexane (CAS No.: 355-42-0)		mg/kg	1	n.d.	-
Perfluoro-n-pentane (CAS No.: 678-26-2)		mg/kg	1	n.d.	-
Perfluor-1-butene (CAS No.: 357-26-6)		mg/kg	1	n.d.	-
Sulfur hexafluoride (CAS No.: 2551-62-4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Bromochloromethan (CAS No.: 74-97-5)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) (CAS No.: 3846-71-7)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Fluorine (F) (CAS No.: 14762-94-8)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Chlorine (Cl) (CAS No.: 22537-15-1)		mg/kg	50	n.d.	-
Bromine (Br) (CAS No.: 10097-32-2)		mg/kg	50	n.d.	-
Iodine (I) (CAS No.: 14362-44-8)		mg/kg	50	n.d.	-
Radioactive substances	Geiger counter.	µSv/hour	-	Negative*	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Arsenic (As) (※ E)	With reference to RSTS-EE-SVHC-007, analysis was performed by ICP-OES.	mg/kg	50	n.d.	-
Diarsenic pentaoxide (As <sub>2</sub> O <sub>5</sub> ) (CAS No.: 1303-28-2)	Calculated from the result of Arsenic.	mg/kg	50▲	n.d.	-
Diarsenic trioxide (As <sub>2</sub> O <sub>3</sub> ) (CAS No.: 1327-53-3)	Calculated from the result of Arsenic.	mg/kg	50▲	n.d.	-
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>					
Benzo[a]pyrene (CAS No.: 50-32-8)	With reference to AfPS GS 2019:01 PAK, analysis was performed by GC/MS.	mg/kg	0.2	n.d.	Δ
Benzo[e]pyrene (CAS No.: 192-97-2)		mg/kg	0.2	n.d.	Δ
Benzo[a]anthracene (CAS No.: 56-55-3)		mg/kg	0.2	n.d.	Δ
Benzo[b]fluoranthene (CAS No.: 205-99-2)		mg/kg	0.2	n.d.	Δ
Benzo[j]fluoranthene (CAS No.: 205-82-3)		mg/kg	0.2	n.d.	Δ
Benzo[k]fluoranthene (CAS No.: 207-08-9)		mg/kg	0.2	n.d.	Δ
Chrysene (CAS No.: 218-01-9)		mg/kg	0.2	n.d.	Δ
Dibenzo[a,h]anthracene (CAS No.: 53-70-3)		mg/kg	0.2	n.d.	Δ
Benzo[g,h,i]perylene (CAS No.: 191-24-2)		mg/kg	0.2	n.d.	Δ
Indeno[1,2,3-c,d]pyrene (CAS No.: 193-39-5)		mg/kg	0.2	n.d.	Δ
Anthracene (CAS No.: 120-12-7)		mg/kg	0.2	n.d.	Δ
Fluoranthene (CAS No.: 206-44-0)		mg/kg	0.2	n.d.	Δ
Phenanthrene (CAS No.: 85-01-8)		mg/kg	0.2	n.d.	Δ
Pyrene (CAS No.: 129-00-0)		mg/kg	0.2	n.d.	Δ
Naphthalene (CAS No.: 91-20-3)		mg/kg	0.2	n.d.	Δ
<b>Sum of 15 PAHs</b>		mg/kg	-	n.d.	Δ
Bisphenol A (CAS No.: 80-05-7)	With reference to RSTS-CHEM-239-1, analysis was performed by LC/MS/MS.	mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
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" TM) [covering any of its individual anti- and syn-isomers or any combination thereof]	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	100	n.d.	-
Perfluorobutane Acid (PFBA) (CAS No.: 375-22-4)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluoropentane Acid (PFPA) (CAS No.: 2706-90-3)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Undecafluorohexanoic acid and its salt (PFHxA) (CAS No.: 307-24-4)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
7H-Dodecanefluoroheptane Acid (HPFHpA) (CAS No.: 1546-95-8)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorobutane Sulfonate (PFBS) (CAS No.: 375-73-5)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorobutane Sulfonate K-salt (PFBS-K ) (CAS No.: 29420-49-3)	Calculated from the result of Perfluorobutane Sulfonate (PFBS).	mg/kg	0.01▲	n.d.	-
Perfluoroheptane Acid (PFHpA) (CAS No.: 375-85-9)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
1H,1H,2H,2H-Perfluorooctanesulphonic Acid (H4PFOS 6:2) (CAS No.: 27619-97-2)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
PFOA and its salts (CAS No.: 335-67-1 and its salts)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Ammonium pentadecafluorooctanoate (APFO) (CAS No.: 3825-26-1)	Calculated from the result of PFOA and its salts.	mg/kg	0.01▲	n.d.	-
Sodium perfluorooctanoate (PFOA-Na) (CAS No.: 335-95-5)	Calculated from the result of PFOA and its salts.	mg/kg	0.01▲	n.d.	-
Potassium perfluorooctanoate (PFOA-K) (CAS No.: 2395-00-8)	Calculated from the result of PFOA and its salts.	mg/kg	0.01▲	n.d.	-
Silver perfluorooctanoate (PFOA-Ag) (CAS No.: 335-93-3)	Calculated from the result of PFOA and its salts.	mg/kg	0.01▲	n.d.	-
Perfluorooctanoyl fluoride (PFOA-F) (CAS No.: 335-66-0)	Calculated from the result of PFOA and its salts.	mg/kg	0.01▲	n.d.	-
2H,2H-Perfluorodecane Acid (H <sub>2</sub> PFDA) (CAS No.: 27854-31-5)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorohexane-1-sulphonic acid and its salts (PFHxS) (CAS No.: 355-46-4)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorohexanesulfonate NA-salt (PFHxS-Na) (CAS No.: 82382-12-5)	Calculated from the result of Perfluorohexane sulfonate (PFHxS).	mg/kg	0.01▲	n.d.	-
Perfluorohexanesulfonate K-salt (PFHxS-K) (CAS No.: 3871-99-6)	Calculated from the result of Perfluorohexane sulfonate (PFHxS).	mg/kg	0.01▲	n.d.	-
Perfluorononane Acid (PFNA) (CAS No.: 375-95-1)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorononanoate NA-Salt (PFNA-Na) (CAS No.: 21049-39-8)	Calculated from the result of Perfluorononane Acid (PFNA).	mg/kg	0.01▲	n.d.	-
Perfluorononanoate ammonium salt (APFN) (CAS No.: 4149-60-4)	Calculated from the result of Perfluorononane Acid (PFNA).	mg/kg	0.01▲	n.d.	-
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA) (CAS No.: 172155-07-6)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluoroheptane Sulfonate (PFHpS) (CAS No.: 375-92-8)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Perfluoroheptanesulfonate Na-salt (PFHpS-Na) (CAS No.: 68555-66-8)	Calculated from the result of Perfluoroheptane Sulfonate (PFHpS).	mg/kg	0.01▲	n.d.	-
Perfluorodecane Acid (PFDA) (CAS No.: 335-76-2)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorodecanoate Na-salt (PFDA-Na) (CAS No.: 3830-45-3)	Calculated from the result of Perfluorodecane Acid (PFDA).	mg/kg	0.01▲	n.d.	-
Perfluorodecanoate ammonium salt (PFDA-NH <sub>4</sub> ) (CAS No.: 3108-42-7)	Calculated from the result of Perfluorodecane Acid (PFDA).	mg/kg	0.01▲	n.d.	-
2H,2H,3H,3H-Perfluoroundecanoic Acid (4HPFUnA) (CAS No.: 34598-33-9)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
PFOS and its salts (CAS No.: 1763-23-1 and its salts)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorooctanesulfonamide (PFOSA) (CAS No.: 754-91-6)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
N-Methyl-Perfluorooctanesulfonamide (N-Me-FOSA) (CAS No.: 31506-32-8)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
N-ethylperfluoro-1-octanesulfonamide (EtFOSA) (CAS No.: 4151-50-2)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
N-Methyl-Perfluorooctanesulfonamidoethanol (N-Me-FOSE alcohol) (CAS No.: 24448-09-7)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
N-Ethyl-Perfluorooctanesulfonamidoethanol (N-Et-FOSE alcohol) (CAS No.: 1691-99-2)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorooctane Sulfonyl fluoride (POSF) (CAS No.: 307-35-7)	Calculated from the result of PFOS and its salts.	mg/kg	0.01▲	n.d.	-
Potassium Perfluorooctanesulfonate (PFOS-K) (CAS No.: 2795-39-3)	Calculated from the result of PFOS and its salts.	mg/kg	0.01▲	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH <sub>4</sub> ) (CAS No.: 29081-56-9)	Calculated from the result of PFOS and its salts.	mg/kg	0.01▲	n.d.	-
N-decyl-N,N-dimethyldecyl-1-aminium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctane-1-sulfonate (PFOS-DDA) (CAS No.: 251099-16-8)	Calculated from the result of PFOS and its salts.	mg/kg	0.01▲	n.d.	-
Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) <sub>2</sub> ) (CAS No.: 70225-14-8)	Calculated from the result of PFOS and its salts.	mg/kg	0.01▲	n.d.	-
Perfluorooctanesulfonic acid, lithium salt (PFOS-Li) (CAS No.: 29457-72-5)	Calculated from the result of PFOS and its salts.	mg/kg	0.01▲	n.d.	-
Perfluorooctanesulfonic acid, tetraethylammonium salt (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> ) (CAS No.: 56773-42-3)	Calculated from the result of PFOS and its salts.	mg/kg	0.01▲	n.d.	-
Perfluoroundecanoic Acid (PFUnA) (CAS No.: 2058-94-8)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorododecanoic Acid (PFDoA) (CAS No.: 307-55-1)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorodecane Sulfonate (PFDS) (CAS No.: 126105-34-8/ 335-77-3)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Perfluorodecanesulfonate Na-salt (PFDS-Na) (CAS No.: 2806-15-7)	Calculated from the result of Perfluorodecane Sulfonate (PFDS).	mg/kg	0.01▲	n.d.	-
Perfluorodecanesulfonate K-salt (PFDS-K) (CAS No.: 2806-16-8)	Calculated from the result of Perfluorodecane Sulfonate (PFDS).	mg/kg	0.01▲	n.d.	-
Perfluoroaliphatic Dean-sulfonate salt of NH <sub>4</sub> (PFDS-NH <sub>4</sub> ) (CAS No.: 67906-42-7)	Calculated from the result of Perfluorodecane Sulfonate (PFDS).	mg/kg	0.01▲	n.d.	-
Perfluorotridecanoic Acid (PFTra) (CAS No.: 72629-94-8)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Perfluorotetradecanoic Acid (PFTeA) (CAS No.: 376-06-7)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) (CAS No.: 39108-34-4)	With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.	mg/kg	0.01	n.d.	-
Methyl perfluorooctanoate (Me-PFOA) (CAS No.: 376-27-2)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.1	n.d.	-
Ethyl perfluorooctanoate (Et-PFOA) (CAS No.: 3108-24-5)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH) (CAS No.: 678-39-7)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA) (CAS No.: 27905-45-9)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA) (CAS No.: 1996-88-9)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.1	n.d.	-
Perfluoro-1-iodooctane (PFOI) (CAS No.: 507-63-1)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.1	n.d.	-
1H,1H,2H,2H-Perfluoro-1-hexanol (4:2FTOH) (CAS No.: 2043-47-2)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1H,1H,2H,2H-Perfluoro-1-octanol (6:2FTOH) (CAS No.: 647-42-7)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1H,1H,2H,2H-Perfluorooctylacrylate (6:2FTA) (CAS No.: 17527-29-6)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1H,1H,2H,2H-Perfluorododecylacrylate (10:2FTA) (CAS No.: 17741-60-5)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.2	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2FTOH) (CAS No.: 865-86-1)	With reference to CEN/TS 15968: 2010, analysis was performed by GC/MS.	mg/kg	0.2	n.d.	-
Decabromodiphenylethane (CAS No.: 84852-53-9)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Sulfur (S) (CAS No.: 7704-34-9)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-
Decabromodiphenyl ether (DecaBDE) (CAS No.: 1163-19-5)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	Prohibited / N/A(*3)
Phenol, isopropylated, phosphate (3:1) (PIP 3:1) (CAS No.: 68937-41-7)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	Prohibited / N/A(*1)
2,4,6-Tris(tert-butyl)phenol (2,4,6-TTBP) (CAS No.: 732-26-3)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	3000 / N/A(*2)
Pentachlorothiophenol (PCTP) (CAS No.: 133-49-3)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	10000
Hexachlorobutadiene (HCBD) (CAS No.: 87-68-3)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	Prohibited
1-Bromopropane (CAS No.: 106-94-5)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1,4-Dioxane (CAS No.: 123-91-1)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1-methyl-2-pyrrolidone (CAS No.: 872-50-4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1,3-Butadiene (CAS No.: 106-99-0)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
1,2-dichlorobenzene (CAS No.: 95-50-1)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
1,4-Dichlorobenzene (CAS No.: 106-46-7)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Di-cyclohexyl phthalate (DCHP) (CAS No.: 84-61-7)	With reference to IEC 62321-8: 2017, analysis was performed by GC/MS.	mg/kg	50	n.d.	-
Dibromoethane (CAS No.: 106-93-4)	With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.	mg/kg	1	n.d.	-
Tetrabromobisphenol A (TBBP-A) (CAS No.: 79-94-7)	With reference to RSTS-E&E-121, analysis was performed by LC/MS.	mg/kg	10	n.d.	-
Triphenyl phosphate (CAS No.: 115-86-6)	With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.	mg/kg	5	n.d.	-
Phthalic anhydride (CAS No.: 85-44-9)	With reference to US EPA 3550C: 2007, analysis was performed by LC/MS.	mg/kg	50	n.d.	-
LCPFAC					
Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-10-iodo-. (as Fluorine) (CAS No.: 2043-53-0)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-12-iodo-. (as Fluorine) (CAS No.: 2043-54-1)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-14-iodo-. (as Fluorine) (CAS No.: 30046-31-2)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-. (as Fluorine) (CAS No.: 39239-77-5)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12, 12,13,13,14,14,15,15,16,16,16- nonacosafuoro-. (as Fluorine) (CAS No.: 60699-51-6)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,12,12,13,13,14,14- nonacosafuoro-16-iodo-. (as Fluorine) (CAS No.: 65510-55-6)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Alcohols, C8-14, .gamma.-.omega.- perfluoro. (as Fluorine) (CAS No.: 68391-08-2)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Thiols, C8-20, .gamma.-.omega.- perfluoro, telomers with acrylamide. (as Fluorine) (CAS No.: 70969-47-0)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Silicic acid (H <sub>4</sub> SiO <sub>4</sub> ), sodium salt (1:2), reaction products with chlorotrimethylsilane and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10- heptadecafluoro-1-decanol. (as Fluorine) (CAS No.: 125476-71-3)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Thiols, C4-20, .gamma.-.omega.- perfluoro, telomers with acrylamide and acrylic acid, sodium salts. (as Fluorine) (CAS No.: 1078712-88-5)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
1-Propanaminium, 3-amino-N- (carboxymethyl)-N,N-dimethyl-, N-[2- [(.gamma.-.omega.-perfluoro-C4-20-a lkyl)thio]acetyl] derivs., inner salts. (as Fluorine) (CAS No.: 1078715-61-3)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Polyfluoroalkyl betaine (PROVISIONAL). (as Fluorine) (CAS No.: CBI)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-

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Test Item(s)	Method	Unit	MDL	Result	Limit
				No.1	
Modified fluoroalkyl urethane (PROVISIONAL). (as Fluorine) (CAS No.: CBI)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
Perfluorinated polyamine (PROVISIONAL). (as Fluorine) (CAS No.: CBI)	With reference to BS EN 14582: 2016, analysis was performed by IC.	mg/kg	50	n.d.	-
1-Propanesulfonic acid, 2-methyl-, 2-[[[1-oxo-3-[(gamma.-omega.-perfluoro- C4-16-alkyl)thio]propyl]amino] derivs., sodium salts (as Sulfur) (CAS No.: 68187-47-3)	With reference to US EPA 3052: 1996, analysis was performed by ICP-OES.	mg/kg	2	n.d.	-

## Note :

1. mg/kg = ppm ; 0.1wt% = 0.1% = 1000ppm
2. MDL = Method Detection Limit
3. n.d. = Not Detected ( Less than MDL)
4. "-" = Not Regulated
5. \*\*= Qualitative analysis (No Unit)
6. Negative = Undetectable ; Positive = Detectable
7. Testing range of asbestos qualitative analysis is from less than 0.1% to 100%. The judgment criterion: asbestos fibers being found is shown as "Positive"; asbestos fibers not being found is shown as "Negative".
8. PFOS and its salts including :  
CAS No.: 29081-56-9, 2795-39-3, 29457-72-5, 70225-14-8, 56773-42-3, 251099-16-8, 307-35-7.
9. PFOA and its salts including :  
CAS No.: 3825-26-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0.
10. ▲ : The MDL was evaluated for element / tested substance.  
Conversion Formula :  $AX = A \times F$

AX	A	F
Diarsenic pentaoxide	Arsenic	1.5339
Diarsenic trioxide	Arsenic	1.3203
Beryllium oxide (BeO)	Beryllium	2.7753
Cobalt dichloride	Cobalt	2.2031
	Chlorine	1.8312

Parameter Conversion Table : [https://eecloud.sgs.com/Region\\_TW/DocDownload.aspx#otherDoc](https://eecloud.sgs.com/Region_TW/DocDownload.aspx#otherDoc)

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11. Negative\*/Positive\*: The test result of Geiger counter is from comparison between test outcome and environment background. In general, there is little radiation dose existing in environment. (Radiation dose from environment background usually less than or equal to 0.2μSv/hr)  
The test result less than environment background was shown as Negative\*; the result greater than environment background was shown as Positive\*.
12. (※E): The extracted soluble Arsenic is detected by ICP-OES.
13. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.
14. Detail explanation of the regulation is available at the following link.  
<https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/persistent-bioaccumulative-and-toxic-pbt-chemicals-under>
15. N/A(\*1) : The submitted sample is exempted from the regulated scope if it is anyone of the following :
  - Hydraulic fluids for aviation or military
  - Lubricants and grease
  - New and replacement parts for motor and aerospace vehicles
  - Manufacture of cyanoacrylate adhesives in closed systems
  - Specialized engine air filters for locomotive and marine applications
  - Plastic for recycling from PIP (3:1)-containing products or articles
  - Finished products or articles made of plastic recycled from PIP (3:1)-containing products or articles
16. N/A(\*2) : The submitted sample is exempted from the regulated scope if it is not oil and lubricant additives.
17. N/A(\*3) : The submitted sample is exempted from the regulated scope if it is anyone of the following :  
Exempts processing and distribution for recycling of DecaBDE-containing plastic from products or articles and DecaBDE-containing products or articles made from such recycled plastic.

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## Remark :

△ AfPS (German commission for Product Safety): GS PAHs requirements

Parameter	Category 1	Category 2		Category 3	
	Materials intended to be placed in the mouth, or materials in toys (Directive 2009/48/EC) or articles for children up to 3 years of age with intended long-term skin contact (> 30 seconds).	Materials that are not in Category 1, with intended or foreseeable long-term skin contact (> 30 seconds) or short-term repetitive contact with the skin.		Materials not covered by Category 1 or 2, with intended or foreseeable short-term skin contact (≤30 seconds).	
		a. Use by children under 14	b. Other consumer products	a. Use by children under 14	b. Other consumer products
Naphthalene	< 1	< 2		< 10	
Phenanthrene	< 1 Sum	< 5 Sum	< 10 Sum	< 20 Sum	< 50 Sum
Anthracene					
Fluoranthene					
Pyrene					
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-c,d]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Sum of 15 PAH	< 1	< 5	< 10	< 20	< 50

Unit : mg/kg

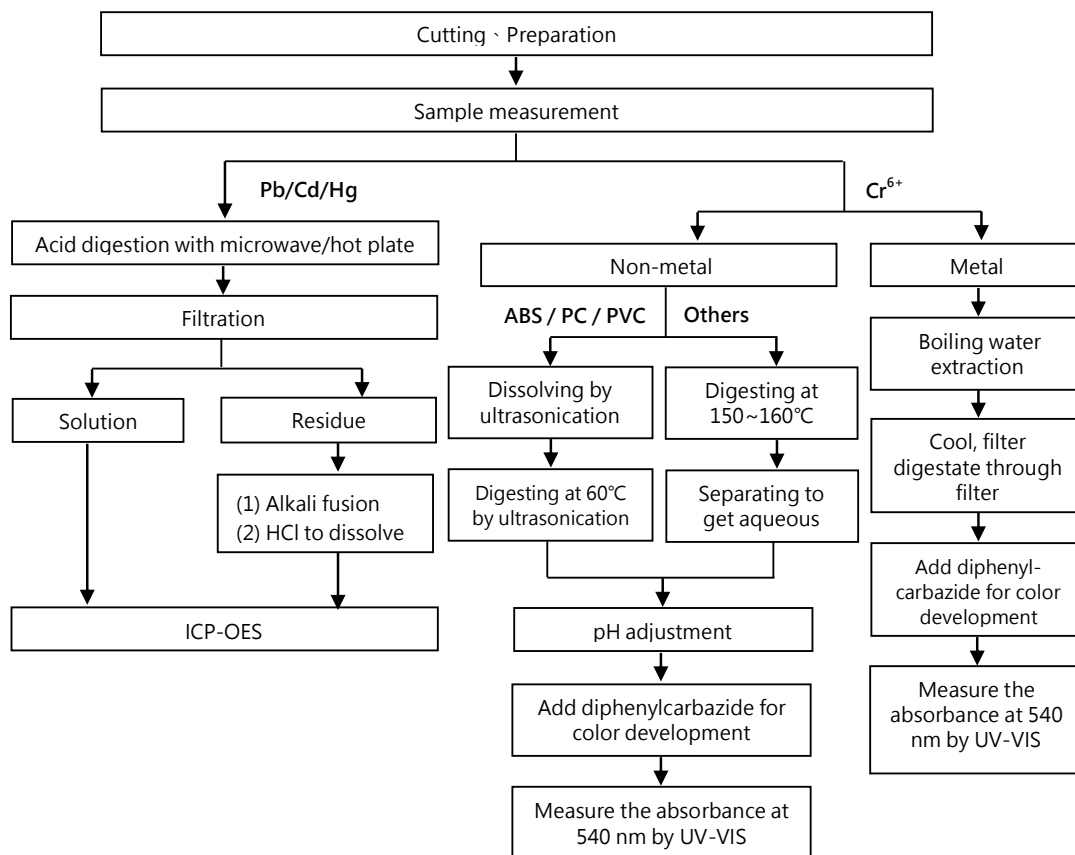
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## Analytical flow chart of Heavy Metal

These samples were dissolved totally by pre-conditioning method according to below flow chart.

(  $\text{Cr}^{6+}$  test method excluded )



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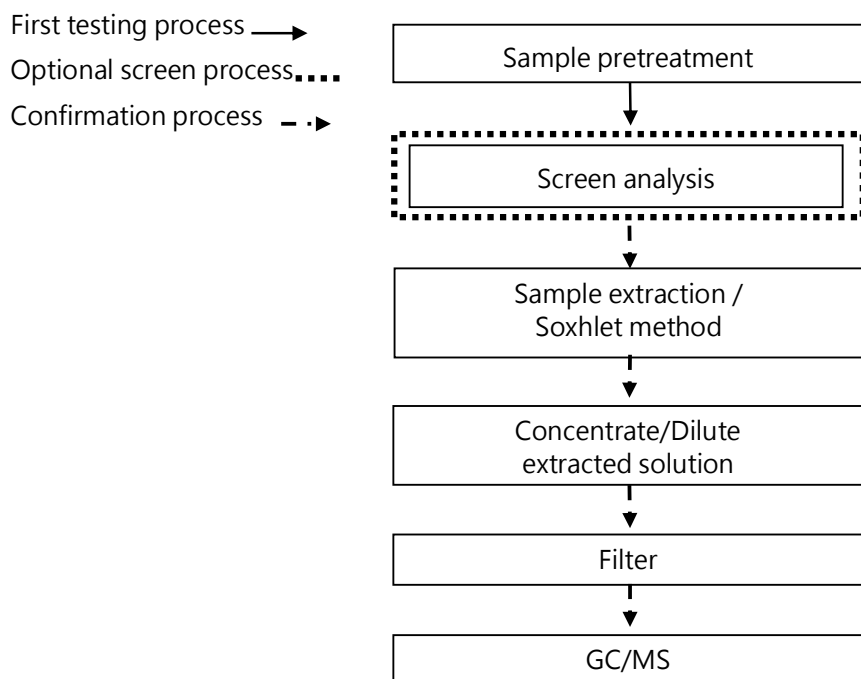
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## Analytical flow chart – PBBs / PBDEs



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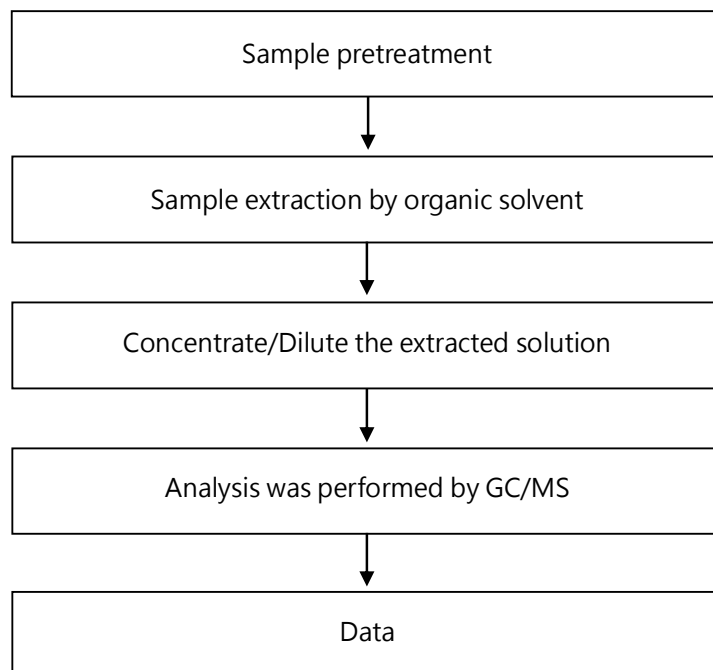
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## Analytical flow chart

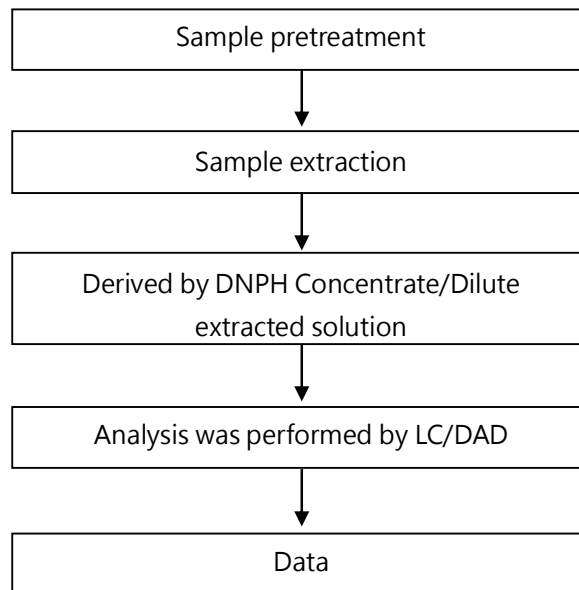
\* Apply to: PCBs, PCNs, PCTs, Mirex, Chlorinated Paraffins, DBBT



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## Analytical flow chart - Formaldehyde



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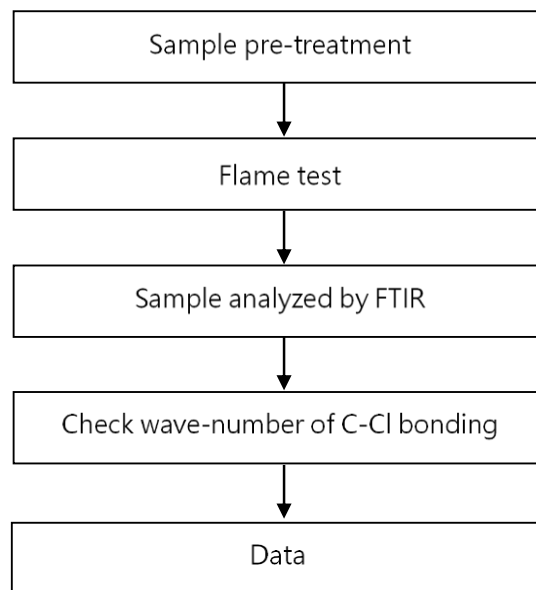
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## Analysis flow chart - PVC

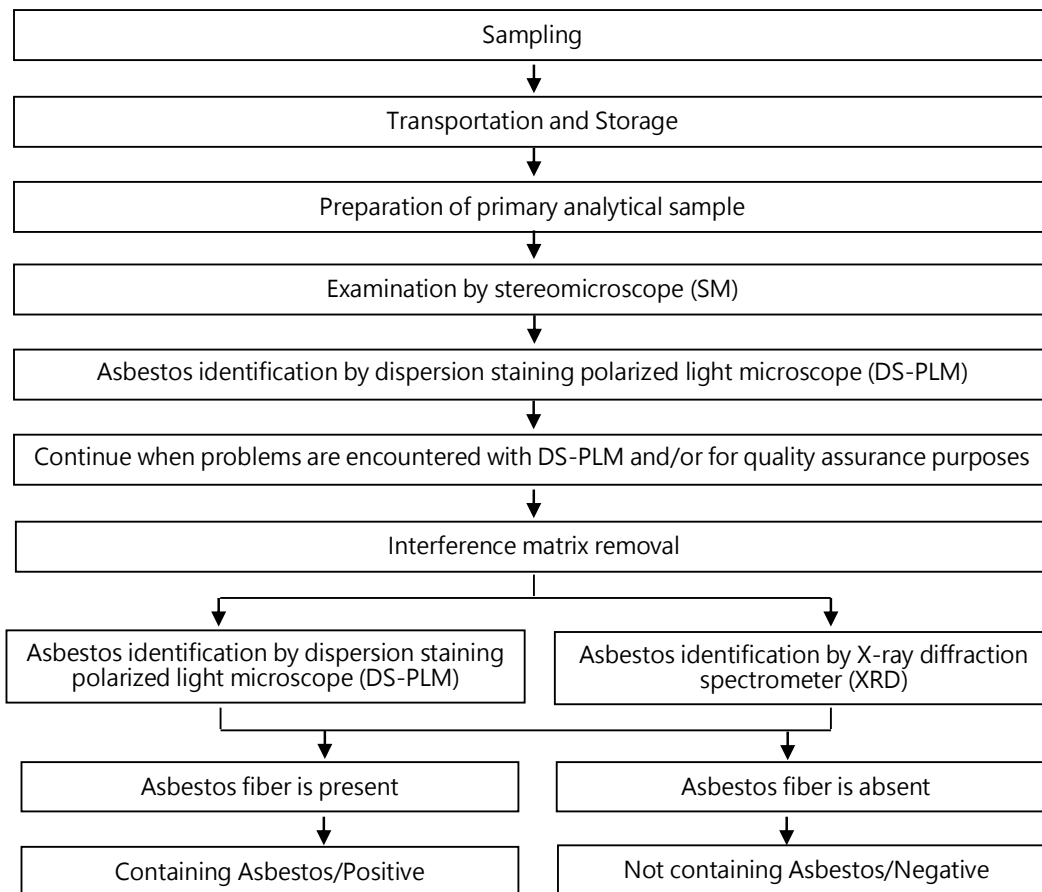


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## Analysis flow chart for determination of Asbestos

【Reference method: EPA 600/R-93/116】



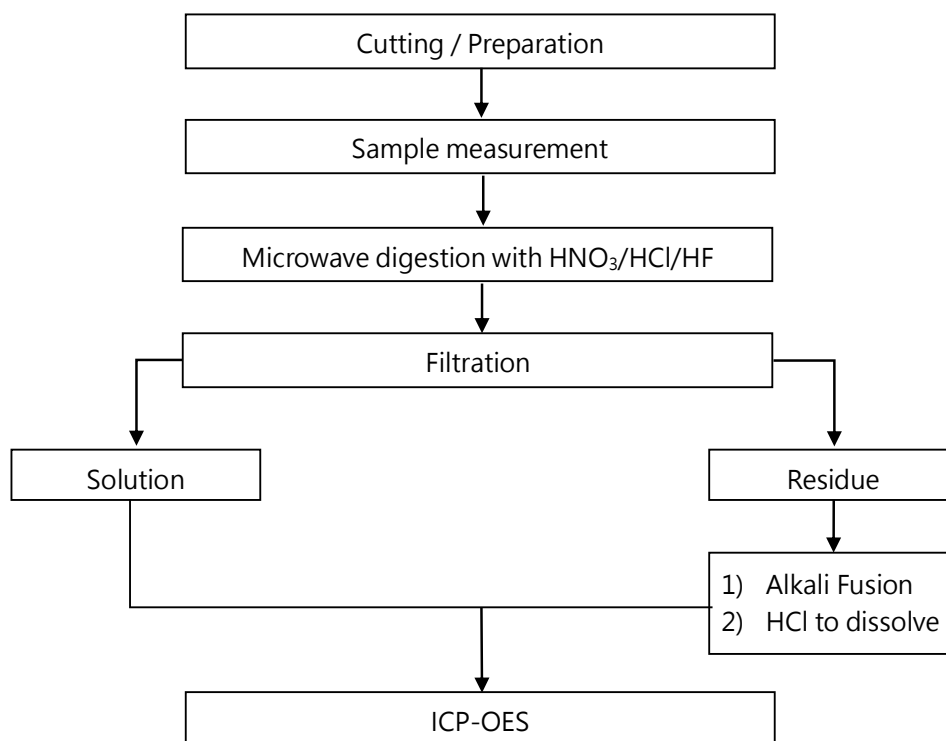
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## Analytical flow chart of Elements (Heavy Metal included)

These samples were dissolved totally by pre-conditioning method according to below flow chart.

【Reference method : US EPA 3051A 、US EPA 3052】



\* US EPA 3051A method does not add HF.

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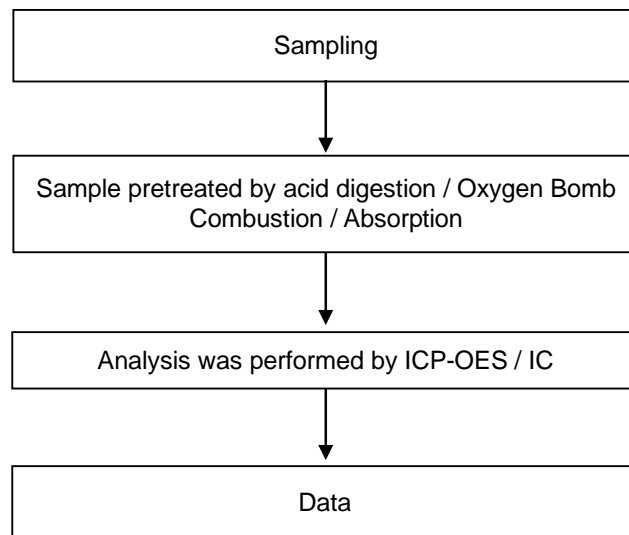
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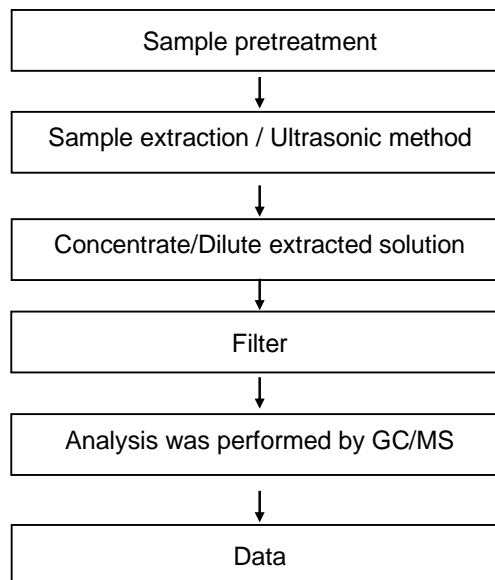
## Analytical flow chart - Cobalt dichloride



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## Analytical flow chart - Dimethyl Fumarate

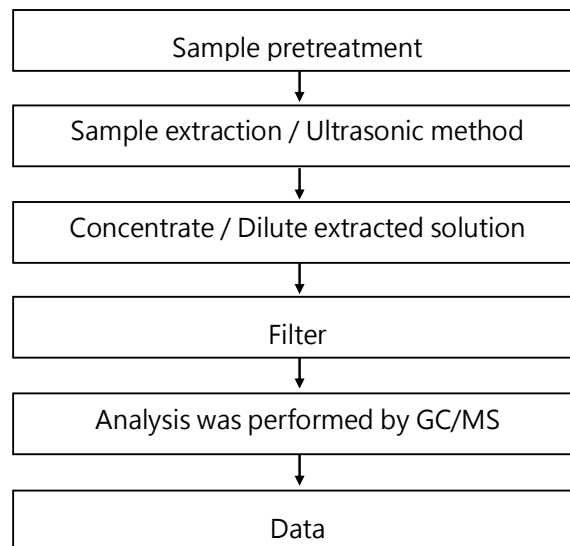


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## Analytical flow chart - Organic phosphorus compounds



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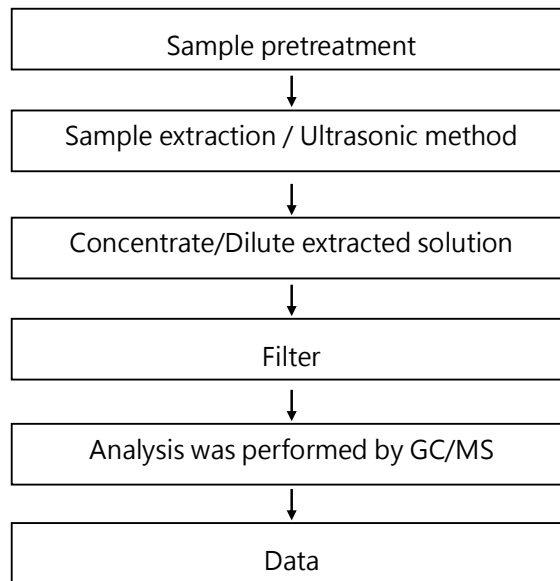
No.: ETR22402826

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## Analytical flow chart - HBCDD



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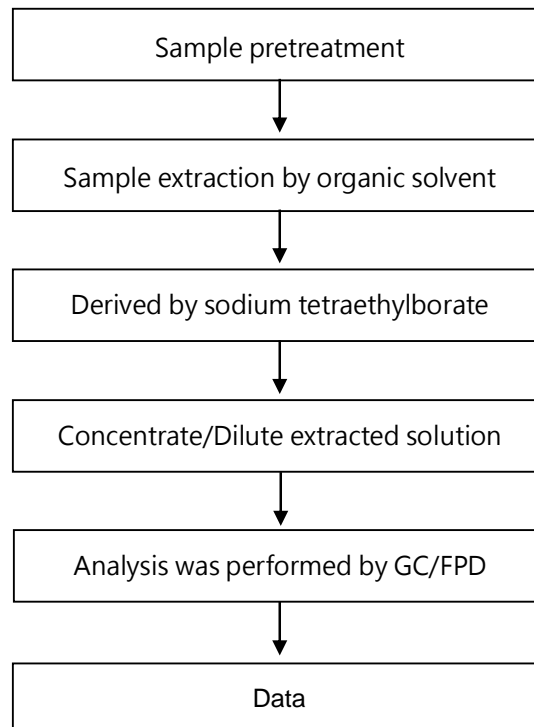
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## Analytical flow chart - Organic-Tin

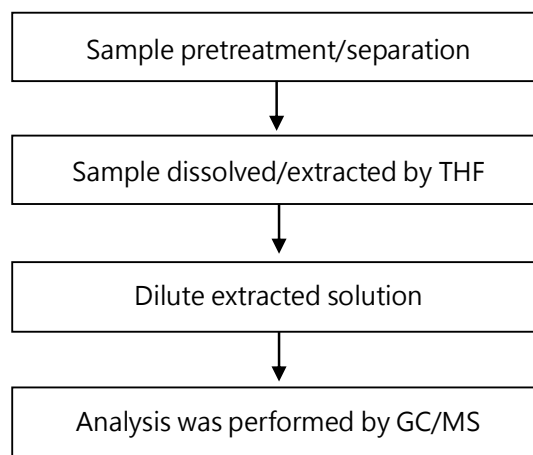


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## Analytical flow chart - Phthalate

【Test method: IEC 62321-8】

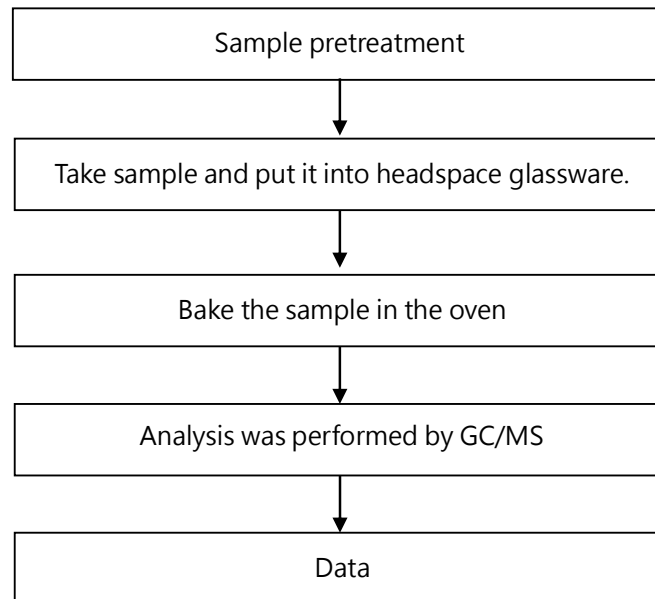


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## Analytical flow chart of volatile organic compounds (VOCs)

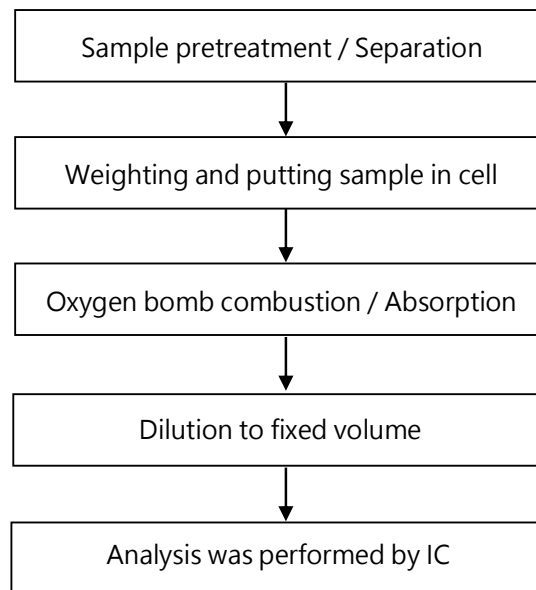
【Reference method : US EPA 5021A】



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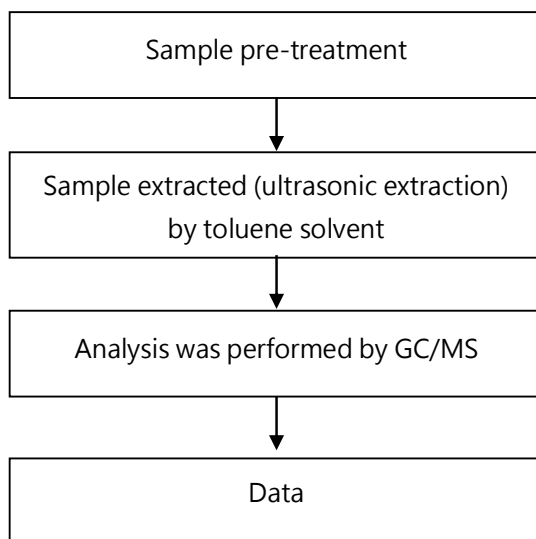
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## Analytical flow chart - Halogen



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## Analytical flow chart - PAHs (Polycyclic Aromatic Hydrocarbons)

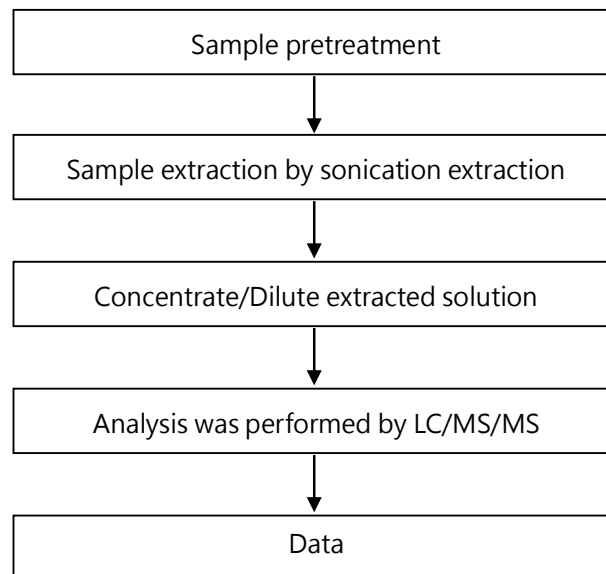


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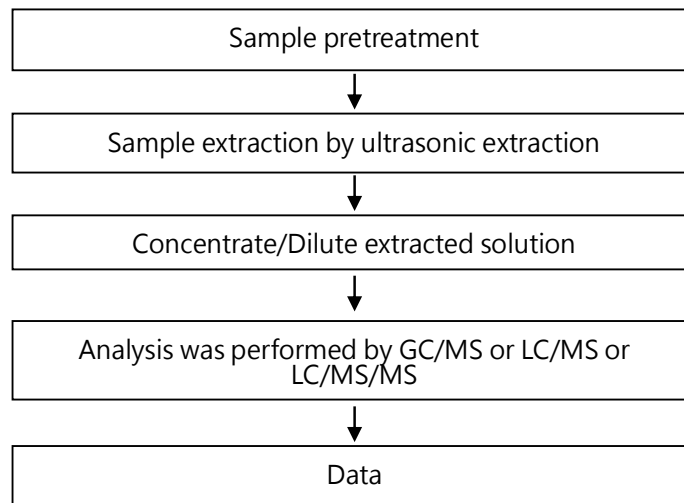
## Analytical flow chart - Bisphenol A



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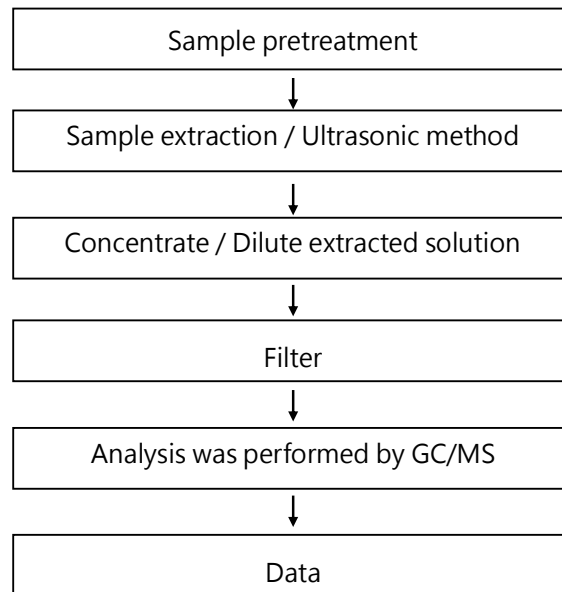
## Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)



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## Analytical flow chart - Persistent, Bioaccumulative, Toxic (PBTs)



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# Test Report

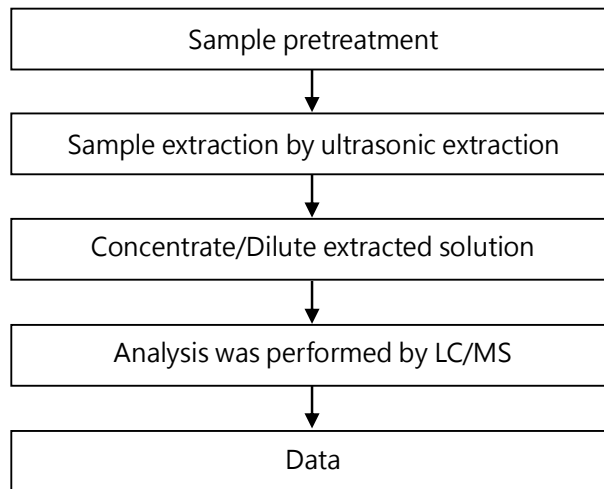
No.: ETR22402826

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## Analytical flow chart - TBBP-A



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## Test Report

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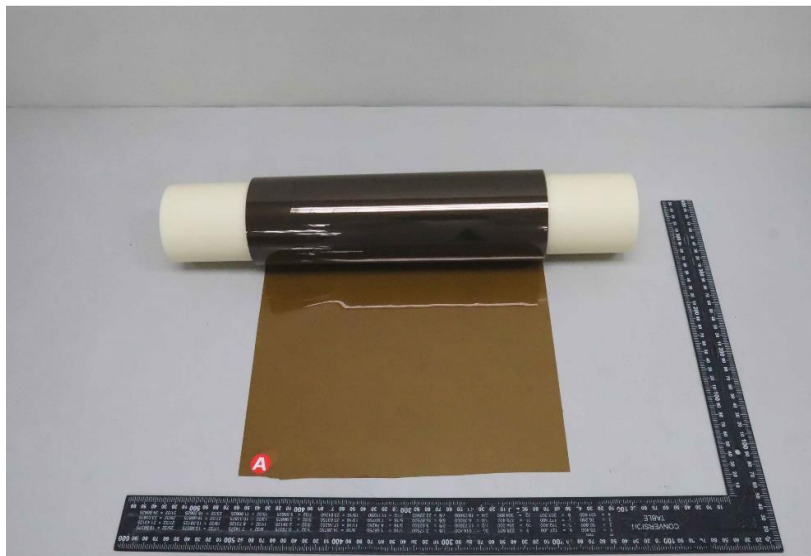
Date: 27-Apr-2022

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\* The tested sample / part is marked by an arrow if it's shown on the photo. \*

### ETR22402826



\*\* End of Report \*\*

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