



Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

Report No. : KA/2008/20115

Date : 2008/02/04

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The following sample(s) was/were submitted and identified by/on behalf of the client as :

Sample Description : MULTI-LAYER CERAMIC CAPACITOR
 Style/Item No. : CC NPO 1206 SERIES
 : BME
 Color : SILVER+GREY
 Sample Receiving Date : 2008/01/10
 Testing Period : 2008/01/10 TO 2008/02/04

Test Result(s) : - Please see the next page(s) -

* This report is combined with reports of KA/2008/10497 & KA/2008/10437 & KA/2008/10478.


Katherine Ho / Supervisor
Signed for and on behalf of
SGS Taiwan Limited

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TW5430624

Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

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Test Result(s)

PART NAME NO.1 : MULTI-LAYER CERAMIC CAPACITOR(KA/2008/10497)
 PART NAME NO.2 : MULTI-LAYER CERAMIC CAPACITOR(KA/2008/10437)
 PART NAME NO.3 : MULTI-LAYER CERAMIC CAPACITOR(KA/2008/10478)

Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
Cadmium (Cd)	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Cadmium by ICP-AES.	2	---	n.d.	---
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.	2	---	n.d.	---
Mercury (Hg)	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Mercury by ICP-AES.	2	---	n.d.	---
Lead (Pb)	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Lead by ICP-AES.	2	---	n.d.	---
Sum of PBBs			-	---	n.d.	---
Monobromobiphenyl	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of PBBs and PBDEs by GC/MS.	5	---	n.d.	---
Dibromobiphenyl			5	---	n.d.	---
Tribromobiphenyl			5	---	n.d.	---
Tetrabromobiphenyl			5	---	n.d.	---
Pentabromobiphenyl			5	---	n.d.	---
Hexabromobiphenyl			5	---	n.d.	---
Heptabromobiphenyl			5	---	n.d.	---
Octabromobiphenyl			5	---	n.d.	---
Nonabromobiphenyl			5	---	n.d.	---
Decabromobiphenyl			5	---	n.d.	---
Sum of PBDEs (Mono to Nona)(Note 4)			-	---	n.d.	---
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of PBBs and PBDEs by GC/MS.	5	---	n.d.	---
Dibromodiphenyl ether			5	---	n.d.	---
Tribromodiphenyl ether			5	---	n.d.	---
Tetrabromodiphenyl ether			5	---	n.d.	---
Pentabromodiphenyl ether			5	---	n.d.	---
Hexabromodiphenyl ether			5	---	n.d.	---
Heptabromodiphenyl ether			5	---	n.d.	---
Octabromodiphenyl ether			5	---	n.d.	---
Nonabromodiphenyl ether			5	---	n.d.	---
Decabromodiphenyl ether			5	---	n.d.	---
Sum of PBDEs (Mono to Deca)			-	---	n.d.	---

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TW5430655

Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
copper (Cu)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	---	---	38300
Nickel (Ni)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	---	---	14700
Tin (Sn)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	5	---	---	28800
Arsenic (As)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Barium (Ba)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	125000	---	---
Beryllium (Be)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Bismuth (Bi)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Cobalt (Co)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Chromium (Cr)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Magnesium (Mg)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	5	154	---	---
Antimony (Sb)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Selenium (Se)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Tellurium (Te)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	n.d.	---	---
Titanium (Ti)	mg/kg	With reference to US EPA 3052. Analysis was performed by ICP-AES.	2	37700	---	---
Bisphenol A	mg/kg	With reference to US EPA 3540C. Analysis was performed by GC/MS.	5	n.d.	---	---

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TW5430626

Test Report

YAGEO CORPORATION NANTZE BRANCH

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
Chlorinated Paraffin (C10~C13) (CAS NO.: 010871-26-2)	%	With reference to US EPA 3540C. Analysis was performed by GC/ECD.	0.01	n.d.	---	---
Formaldehyde (CAS NO.: 000050-00-0)	mg/kg	With reference to DIN 53315. Analysis was performed by HPLC/DAD.	3	n.d.	---	---
HEXABROMOCYCLODODECANE (HBCDD) (CAS NO.: 025637-99-4)	mg/kg	With reference to US EPA 8270D. Analysis was performed by GC/MS.	5	n.d.	---	---
MEDIUM-CHAINED CHLORINATED PARAFFINS, C14-C17 (MCCP)	%	With reference to US EPA 8270D. Analysis was performed by GC/MS.	0.01	n.d.	---	---
Mirex (CAS NO.: 002385-85-5)	mg/kg	With reference to US EPA 3540C. Analysis was performed by GC/ECD.	4	n.d.	---	---
PCBs (Polychlorinated Biphenyls) (CAS NO.: 001336-36-3)	mg/kg	With reference to US EPA 3540C. Analysis was performed by GC/ECD.	0.5	n.d.	---	---
PCTs (Polychlorinated Terphenyls)	mg/kg	With reference to US EPA 3540C. Analysis was performed by GC/MS.	0.5	n.d.	---	---
PVC (CAS NO.: 9002-86-2)	**	Analysis was performed by FTIR/ATR and FLAME Test.	-	Negative	---	---
TBBP-A (CAS NO.: 000079-94-7)	mg/kg	With reference to US EPA 3540C. Analysis was performed by GC/MS.	10	n.d.	---	---
Asbestos	---	---	---	---	---	---
Anthrophyllite (CAS NO.017068-78-9)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	---	---
Crocidolite (CAS NO.012001-28-4)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	---	---
Amosite (CAS NO.012172-73-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	---	---
Tremolite (CAS NO.014567-73-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	---	---
Chrysotile (CAS NO.012001-29-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	---	---
Actinolite (CAS NO.013768-00-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative	---	---

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TW5430627

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
PERFLUOROOCCTANOIC ACID (PFOA)	mg/kg	SOLVENT EXTRACTION (Dichloromethane/ Methanol : 1/1) Analysis was performed by LC/MS	1	n.d.	---	---
PERFLUOROOCCTANE SULFONATES (PFOS)	mg/kg	SOLVENT EXTRACTION (Dichloromethane/ Methanol : 1/1) Analysis was performed by LC/MS	1	n.d.	---	---
Phthalates	---	---	---	---	---	---
DBP(Di-butyl phthalate) (CAS No.000084-74-2)	%	With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC/MS.	0.003	n.d.	---	---
DEHP(Di-(2-ethylhexyl phthalate)) (CAS No.000117-81-7)	%	With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC/MS.	0.003	n.d.	---	---
DIDP(Di-isodecyl phthalate) (CAS No.026761-40-0)	%	With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC/MS.	0.003	n.d.	---	---
DINP(Di-isononyl phthalate) (CAS No.028553-12-0)	%	With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC/MS.	0.003	n.d.	---	---
BBP(Benzyl butyl phthalate) (CAS No.000085-68-7)	%	With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC/MS.	0.003	n.d.	---	---
DNOP(Di-n-octyl phthalate) (CAS No.000117-84-0)	%	With reference to Chromatographia Vol.47, No.784, 1998. Analysis was performed by GC/MS.	0.003	n.d.	---	---
Organic-TIN compounds	---	---	---	---	---	---
Tributyl Tin(TBT) (CAS NO.: 000688-73-3)	mg/kg	With reference to DIN 38407-13. Analysis was performed by GC/FPD.	0.03	n.d.	---	---
Triphenyl Tin(TphT) (CAS NO.: 000668-34-8)	mg/kg	With reference to DIN 38407-13. Analysis was performed by GC/FPD.	0.03	n.d.	---	---
CFCs(Chlorofluorocarbons) & HALON	---	---	---	---	---	---
Chlorofluorocarbon-11 (CAS NO.: 000075-69-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-12 (CAS NO.: 000075-71-8)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---

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TW5430628

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
Chlorofluorocarbon-113 (CAS NO.: 000076-13-1)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-114 (CAS NO.: 000076-14-2)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-115 (CAS NO.: 000076-15-3)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-13 (CAS NO.: 000075-72-9)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-111 (CAS NO.: 000354-56-3)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-112 (CAS NO.: 000076-12-0)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-211 (CAS NO.: 135401-87-5)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-212 (CAS NO.: 076564-99-3)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-213 (CAS NO.: 060285-54-3)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-214 (CAS NO.: 002268-46-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-215 (CAS NO.: 000076-17-5)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-216 (CAS NO.: 001652-80-8)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Chlorofluorocarbon-217 (CAS NO.: 000422-86-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
HALON-1211	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---

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TW5430629

Test Report

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
HALON-1301	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
HALON-2402	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
HCFC's (Hydrogenated chlorofluorocarbons)	---	---	---	---	---	---
Hydrochlorofluorocarbon-21 (CAS NO.: 000075-43-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-22 (CAS NO.: 000075-45-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-31 (CAS NO.: 000593-70-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-121 (CAS NO.: 130879-71-9)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-122 (CAS NO.: 041834-16-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-123 (CAS NO.: 034077-87-7)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-124 (CAS NO.: 063938-10-3)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-131 (CAS NO.: 134237-34-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-132 (CAS NO.: 025915-78-0)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---

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TW5430630

Test Report

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
Hydrochlorofluorocarbon-133 (CAS NO.: 001330-45-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-141 (CAS NO.: 025167-88-8)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-141b (CAS NO.: 001717-00-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-142 (CAS NO.: 025497-29-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-142b (CAS NO.: 000075-68-3)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-151 (CAS NO.: 001615-75-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-221 (CAS NO.: 134237-35-7)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-222 (CAS NO.: 134237-36-8)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-223 (CAS NO.: 134237-37-9)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-224 (CAS NO.: 134237-38-0)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-225 (CAS NO.: 127564-92-5)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-225ca (CAS NO.: 000422-56-0)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---

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TW5430631

Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
Hydrochlorofluorocarbon-225cb (CAS NO.: 000507-55-1)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-226 (CAS NO.: 134308-72-8)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-231 (CAS NO.: 134190-48-0)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-232 (CAS NO.: 134237-39-1)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-233 (CAS NO.: 134237-40-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-234 (CAS NO.: 127564-83-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-235 (CAS NO.: 134237-83-5)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-241 (CAS NO.: 134190-49-1)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-242 (CAS NO.: 134237-42-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-243 (CAS NO.: 134237-43-7)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-244 (CAS NO.: 134190-50-4)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-251 (CAS NO.: 134190-51-5)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---

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Test Report

YAGEO CORPORATION NANTZE BRANCH

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
Hydrochlorofluorocarbon-252 (CAS NO.: 134190-52-6)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-253 (CAS NO.: 134237-44-8)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-261 (CAS NO.: 134237-45-9)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-262 (CAS NO.: 134190-53-7)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
Hydrochlorofluorocarbon-271 (CAS NO.: 134190-54-8)	mg/kg	With reference to US EPA 8260. Analysis was performed by GC/MS linked Headspace.	1	n.d.	---	---
AZO	---	---	---	---	---	---
1):4-AMINODIPHENYL (CAS NO.92-67-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
2):BENZIDINE (CAS NO.92-87-5)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
3):4-CHLORO-O-TOLUIDINE (CAS NO.95-69-2)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
4):2-NAPHTHYLAMINE (CAS NO.91-59-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
5):O-AMINO-AZOTOLUENE (CAS NO.97-56-3)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
6):2-AMINO-4-NITROTOLUENE (CAS NO.99-55-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
7):P-CHLOROANILINE (CAS NO.106-47-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
8):2,4-DIAMINOANISOLE (CAS NO.615-05-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
9):4,4-DIAMINODIPHENYLMETHANE (CAS NO.101-77-9)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
10):3,3-DICHLOROBENZIDINE (CAS NO.91-94-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---

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TW5430633

Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
11):3,3-DIMETHOXYBENZIDINE (CAS NO.119-90-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
12):3,3-DIMETHYLBENZIDINE (CAS NO.119-93-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
13):3,3-DIMETHYL- 4,4-DIAMINODIPHENYLMETHA (CAS NO.838-88-0)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
14):P-CRESIDINE (2-METHOXY-5-METHYLANILINE) (CAS NO.120-71-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
15):4,4-METHYLENE-BIS- (2-CHLORANILINE) (CAS NO.101-14-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
16):4,4-OXYDIANILINE (CAS NO.101-80-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
17):4,4-THIODIANILINE (CAS NO.139-65-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
18):O-TOLUIDINE (CAS NO.95-53-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
19):2,4-TOLUYLENDIAMINE (CAS NO.95-80-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
20):2,4,5-TRIMETHYLANILINE (CAS NO.137-17-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
21):O-ANISIDINE (CAS NO.90-04-0)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
22):P-AMINOAZOBENZENE (CAS NO.60-09-3)	mg/kg	With reference to LMBG 82.02-Z. Analysis was performed by GC/MS.	3	n.d.	---	---
23):2,4-XYLIDINE (CAS NO.95-68-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---
24):2,6-XYLIDINE (CAS NO.87-62-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.	---	---

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TW5430634

Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

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Test Item (s)	Unit	Method	MDL	Result		
				No. 1	No. 2	No. 3
Halogen	---	---	---	---	---	---
Halogen-Chlorine (Cl) (CAS NO.: 007782-50-5)	mg/kg	With reference to BS EN 14582. Analysis was performed by IC method for Chlorine content.	50	n.d.	---	---
Halogen-Fluorine (F) (CAS NO.: 007782-41-4)	mg/kg	With reference to BS EN 14582. Analysis was performed by IC method for Fluorine content.	50	n.d.	---	---
Halogen-Bromine (Br) (CAS NO.: 007726-95-6)	mg/kg	With reference to BS EN 14582. Analysis was performed by IC method for Bromine content.	50	n.d.	---	---
Halogen-Iodine (I) (CAS NO.: 007553-56-2)	mg/kg	With reference to BS EN 14582. Analysis was performed by IC method for Iodine content.	50	n.d.	---	---

- Note :
1. mg/kg = ppm
 2. n.d. = Not Detected
 3. MDL = Method Detection Limit
 4. According to 2005/717/EC DecaBDE is exempt.
 5. " - " = Not Regulated
 6. " --- " = Not Conducted
 7. ** = Qualitative analysis (No Unit)
 8. Negative = Undetectable / Positive = Detectable
 9. The MDL is 5ppm for the single compound of CP

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TW5430635

Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

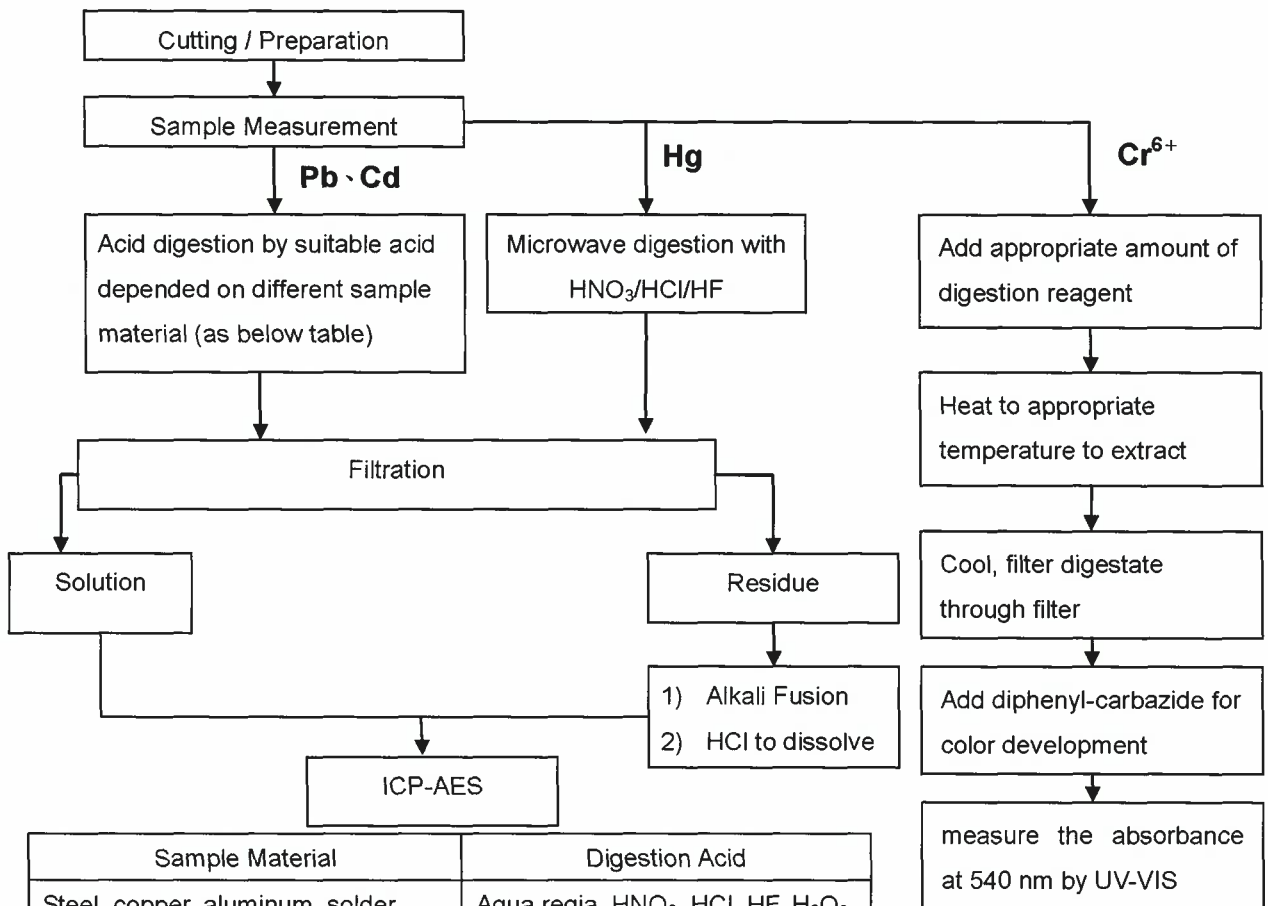
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- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ test method excluded)
- 2) Name of the person who made measurement: Hungming Li
- 3) Name of the person in charge of measurement: George Huang



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
Glass	HNO ₃ /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO ₃
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Any acid to total digestion

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Test Report

YAGEO CORPORATION NANTZE BRANCH

16, WEST 3RD STREET N.E.P.Z. KAOHSIUNG TAIWAN, R.O.C.

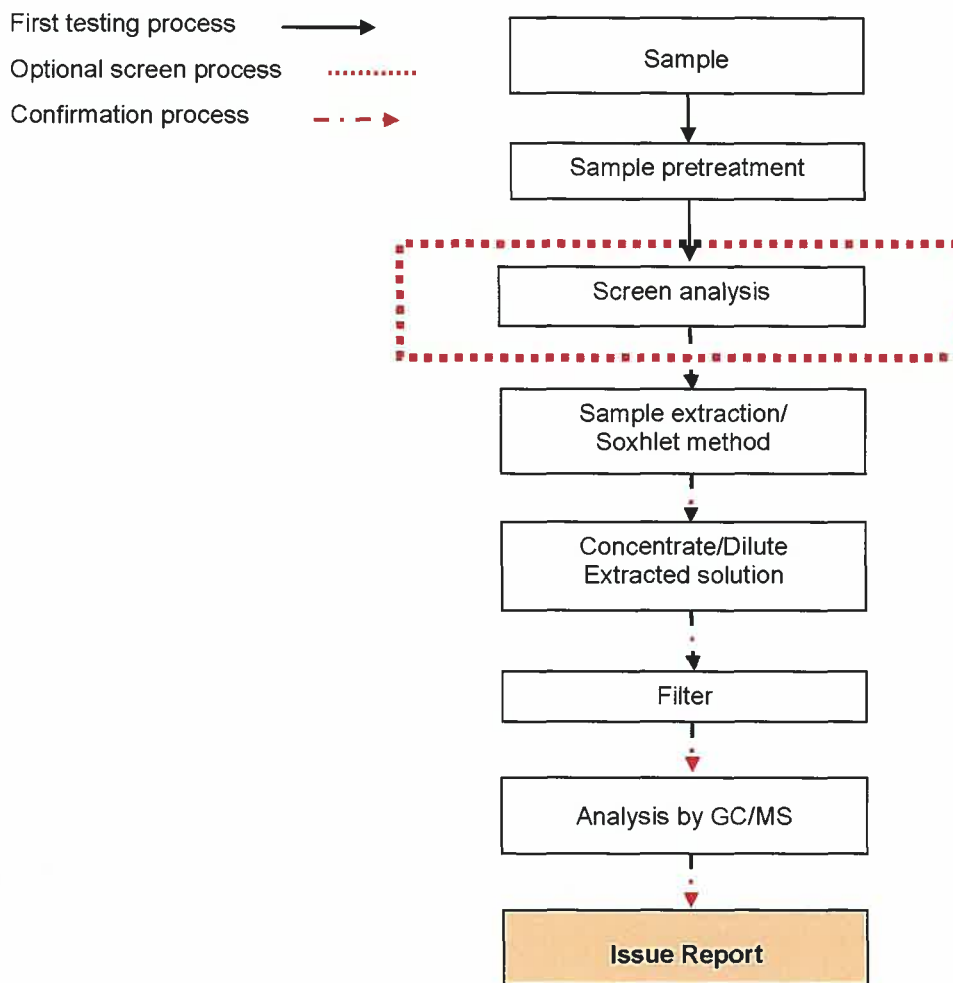
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PBB/PBDE analytical FLOW CHART



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Test Report

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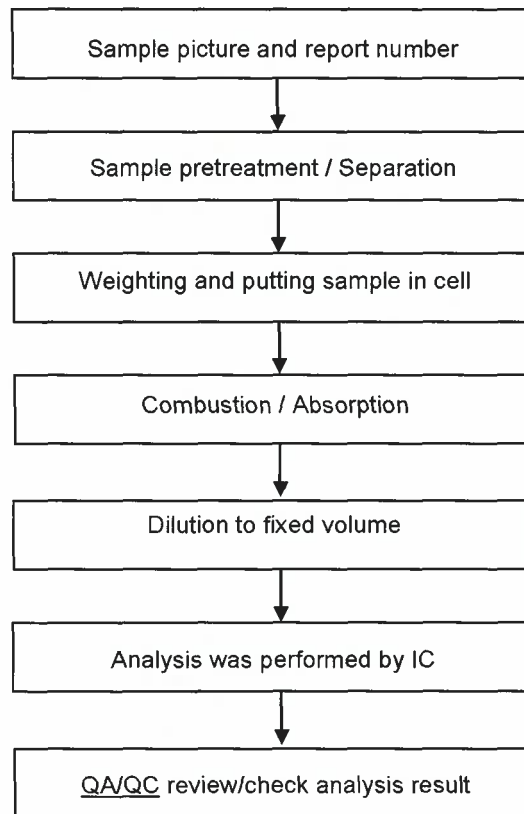
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Analytical flow chart of halogen content



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NO.1



NO.2



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NO.3



** End of Report **

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