

# Test Report

No.: CANEC23017265001

Date: Jan 08, 2024

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Client Name: TAICON CORPORATION.

Client Address: 4/F,9.SEC.1 CHANG AN EAST ROAD.TAIPEI.TAIWAN,CHINA

Sample Name: lectrolytic capacitors

Model No.: SD

Material No.: 400V-82uF

Client Ref. Information: VX,VT,VR,VZ,SR,SM,ST,MA,MU,NP,ET,BP,HF(HD),PZ(PW),HH,HW, . HI,HT,HL,AR(AQ),AS,AM,BL,BY,HG,PJ,VL,SP,SL,HP,LL,SD.HK.HR,HY.BX、BZ

Lot No.: 2347

Main Substance: aluminium

The above sample(s) and information were provided by the client.

SGS Job No.: SZP23-033619

Sample Receiving Date: Dec 22, 2023

Testing Period: Dec 22, 2023 ~ Jan 04, 2024

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	See Results
Perfluorooctane Sulfonates (PFOS) and its derivatives and Perfluorooctanoic Acid (PFOA) and its salts	See Results
Halogen	See Results
Element(s)	See Results
Red Phosphorus	See Results

Signed for and on behalf of  
SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Allie Chen

Allie Chen  
Approved Signatory

scan to see the report



928B4BDB



SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch, Technical Services Co., Ltd. Guangzhou Branch, Chemical Laboratory.

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Test Requirement	Conclusion
Hexabromocyclododecane (HBCDD)	See Results
Phthalates	See Results

## Test Result(s):

### Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	CAN23-0172650-0001.C001	"lectrolytic capacitors"(mixed)

### Remarks:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

**Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

Test Item(s)	Unit(s)	MDL	A1
Lead (Pb)	mg/kg	2	6
Mercury (Hg)	mg/kg	2	ND
Cadmium(Cd)	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	mg/kg	8	ND
Polybromobiphenyl (PBBs)	mg/kg	-	ND
Monobromobiphenyl (MonoBB)	mg/kg	5	ND
Dibromobiphenyl (DiBB)	mg/kg	5	ND
Tribromobiphenyl (TriBB)	mg/kg	5	ND
Tetrabromobiphenyl (TetraBB)	mg/kg	5	ND
Pentabromobiphenyl (PentaBB)	mg/kg	5	ND
Hexabromobiphenyl (HexaBB)	mg/kg	5	ND
Heptabromobiphenyl (HeptaBB)	mg/kg	5	ND
Octabromobiphenyl (OctaBB)	mg/kg	5	ND
Nonabromobiphenyl (NonaBB)	mg/kg	5	ND
Decabromobiphenyl (DecaBB)	mg/kg	5	ND
Polybromodiphenyl ether(PBDEs)	mg/kg	-	ND
Monobromodiphenylether (MonoBDE)	mg/kg	5	ND
Dibromodiphenylether (DiBDE)	mg/kg	5	ND
Tribromodiphenylether (TriBDE)	mg/kg	5	ND
Tetrabromodiphenylether (TetraBDE)	mg/kg	5	ND
Pentabromodiphenylether (PentaBDE)	mg/kg	5	ND
Hexabromodiphenylether (HexaBDE)	mg/kg	5	ND
Heptabromodiphenylether (HeptaBDE)	mg/kg	5	ND
Octabromodiphenylether (OctaBDE)	mg/kg	5	ND



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Test Item(s)	Unit(s)	MDL	A1
Nonabromodiphenylether (NonaBDE)	mg/kg	5	ND
Decabromodiphenylether (DecaBDE)	mg/kg	5	ND
Bis-(2-ethylhexyl) Phthalate(DEHP)	mg/kg	50	ND
Benzyl Butyl Phthalate(BBP)	mg/kg	50	ND
Dibutyl Phthalate(DBP)	mg/kg	50	ND
Diisobutyl Phthalate(DIBP)	mg/kg	50	ND

## Perfluorooctane Sulfonates (PFOS) and its derivatives and Perfluorooctanoic Acid (PFOA) and its salts

Test Method: With reference to CEN/TS 15968:2010, analysis was performed by HPLC-MS or LC-MS/MS.

Test Item(s)	CAS No.	Unit(s)	MDL	A1
PFOS and its derivatives	-	mg/kg	-	ND
Perfluorooctane Sulfonates (PFOS) and its salts*	1763-23-1	mg/kg	0.010	ND
N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2	mg/kg	0.010	ND
N-methylperfluoro-1-octanesulfonamide (N-MeFOSA)	31506-32-8	mg/kg	0.010	ND
2-(N-ethylperfluoro-1-octanesulfonamido) -ethanol (N-EtFOSE)	1691-99-2	mg/kg	0.010	ND
2-(N-methylperfluoro-1-octanesulfonamido) -ethanol (N-MeFOSE)	24448-09-7	mg/kg	0.010	ND
Perfluorooctane Sulfonamide (PFOSA)	754-91-6	mg/kg	0.010	ND
Perfluorooctanoic Acid (PFOA) and its salts*	335-67-1	mg/kg	0.010	ND

### Notes:

(1) Perfluorooctanoic acid (PFOA) and its salts\* including PFOA (CAS No. 335-67-1), APFO (CAS No. 3825-26-1), PFOA-Na (CAS No. 335-95-5), PFOA-K (CAS No. 2395-00-8), PFOA-Ag (CAS No. 335-93-3) and PFOA-F (CAS No. 335-66-0). The result of PFOA is used to represent PFOA and its salts.

(2) Perfluorooctane sulfonates (PFOS) and its salts\* including PFOS (CAS No. 1763-23-1), POSF(CAS No. 307-35-7), PFOS-K (CAS No. 2795-39-3), PFOS-NH<sub>4</sub> (CAS No. 29081-56-9), PFOS-N(C<sub>10</sub>H<sub>21</sub>)<sub>2</sub>(CH<sub>3</sub>)<sub>2</sub> (CAS No. 251099-16-8), PFOS-NH<sub>2</sub>(C<sub>2</sub>H<sub>4</sub>OH)<sub>2</sub> (CAS No. 70225-14-8), PFOS-Li (CAS No. 29457-72-5), PFOS-N(C<sub>2</sub>H<sub>5</sub>)<sub>4</sub> (CAS No. 56773-42-3) and PFOS-Na (CAS No. 4021-47-0). The result of PFOS is used to represent PFOS and its salts.

### Halogen

Test Method: With reference to EN 14582:2016, analysis was performed by IC.

Test Item(s)	Unit(s)	MDL	A1
Fluorine(F)	mg/kg	20	ND
Chlorine(Cl)	mg/kg	50	ND



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Test Item(s)	Unit(s)	MDL	A1
Bromine(Br)	mg/kg	50	ND
Iodine(I)	mg/kg	50	ND

## Element(s)

Test Method: With reference to US EPA 3052:1996, analysis was performed by ICP-OES/AAS.

Test Item(s)	Unit(s)	MDL	A1
Arsenic(As)	mg/kg	10	ND
Beryllium(Be)	mg/kg	5	ND
Antimony(Sb)	mg/kg	10	ND
Antimony Trioxide(Sb <sub>2</sub> O <sub>3</sub> ) ◆	mg/kg	12	ND

## Notes:

◆ Calculated concentration of Sb<sub>2</sub>O<sub>3</sub> is based on the identified Sb.

## Red Phosphorus

Test Method: SGS In-house method (SGS-CCL-TOP-215-01), analysis was performed by PY-GC/MS/ICP-OES / GC-MS.

Test Item(s)	CAS No.	Unit(s)	MDL	A1
Red Phosphorus	7723-14-0	mg/kg	500	ND

## Hexabromocyclododecane (HBCDD)

Test Method: With reference to IEC 62321-9:2021, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Unit(s)	MDL	A1
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD)	134237-50-6 /134237-51-7 /134237-52-8 /25637-99-4 /3194-55-6	mg/kg	20	ND

## Phthalates

Test Method: With reference to IEC 62321-8:2017, analysis was performed by GC-MS.

Test Item(s)	CAS No.	Unit(s)	MDL	A1
Diisononyl Phthalate (DINP)	28553-12-0 /68515-48-0	mg/kg	50	ND
Di-n-Octyl Phthalate(DNOP)	117-84-0	mg/kg	50	ND
Diisodecyl Phthalate (DIDP)	26761-40-0 /68515-49-1	mg/kg	50	ND
Bis(2-methoxyethyl)phthalate(DMEP)	117-82-8	mg/kg	50	ND
Di-n-Hexyl Phthalate(DnHP)	84-75-3	mg/kg	50	ND
Dipentyl Phthalate (DPENP/DnPP)	131-18-0	mg/kg	50	ND



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Test Item(s)	CAS No.	Unit(s)	MDL	A1
Diphenyl Phthalate(DPhP)	84-62-8	mg/kg	50	ND
Dimethyl Phthalate(DMP)	131-11-3	mg/kg	50	ND
Diethyl Phthalate(DEP)	84-66-2	mg/kg	50	ND
Dipropyl Phthalate(DPrP)	131-16-8	mg/kg	50	ND
Dicyclohexyl Phthalate(DCHP)	84-61-7	mg/kg	50	ND
Dinonyl Phthalate(DNP)	84-76-4	mg/kg	50	ND
Diisooctyl Phthalate(DIOP)	27554-26-3	mg/kg	50	ND
Diisopentyl Phthalate(DIPP)	605-50-5	mg/kg	50	ND
Di-n-Heptyl Phthalate(DnHpP)	3648-21-3	mg/kg	50	ND
Di(2-propylheptyl)Phthalate(DPHpP)	53306-54-0	mg/kg	50	ND

Remark: The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing. The above result(s) was/were only given as the informality value and only for reference. 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.



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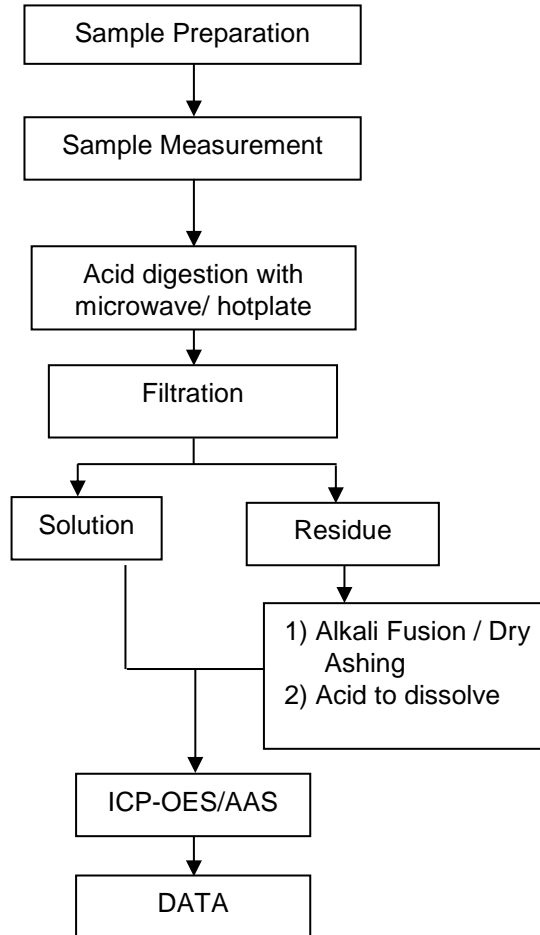
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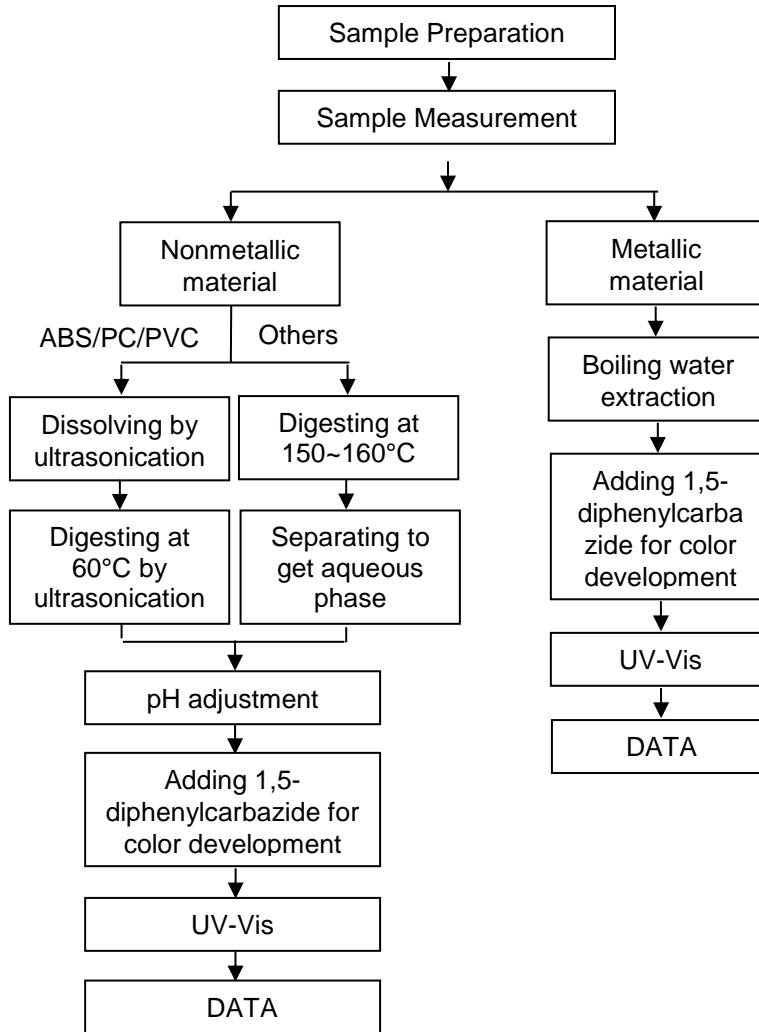
**Elements Testing Flow Chart**

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



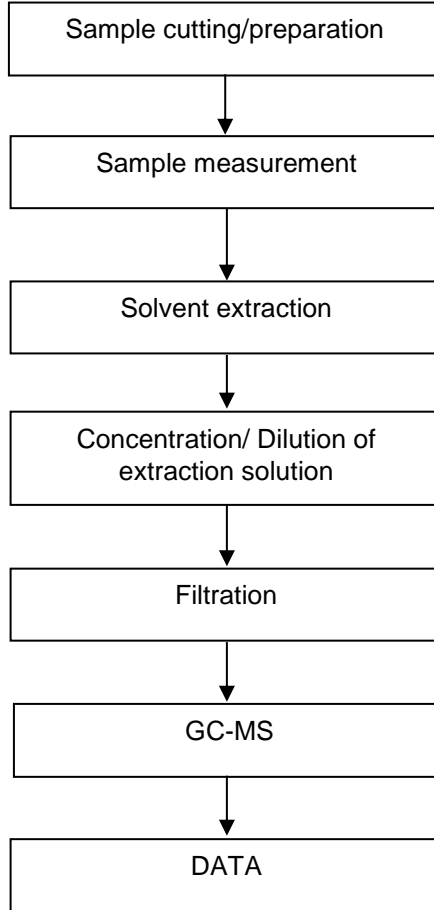
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**Hexavalent Chromium (Cr(VI)) Testing Flow Chart**



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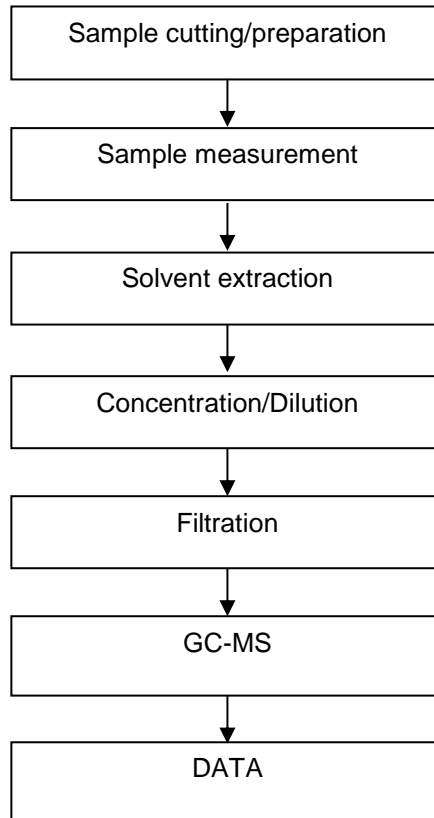
### PBBs/PBDEs Testing Flow Chart



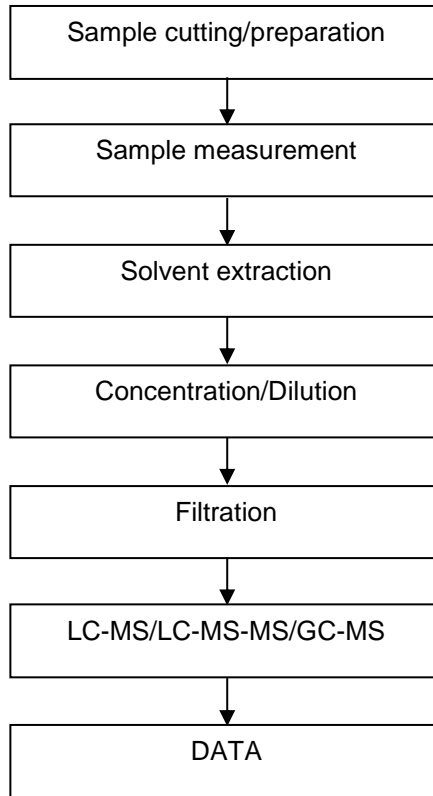
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### Phthalates Testing Flow Chart

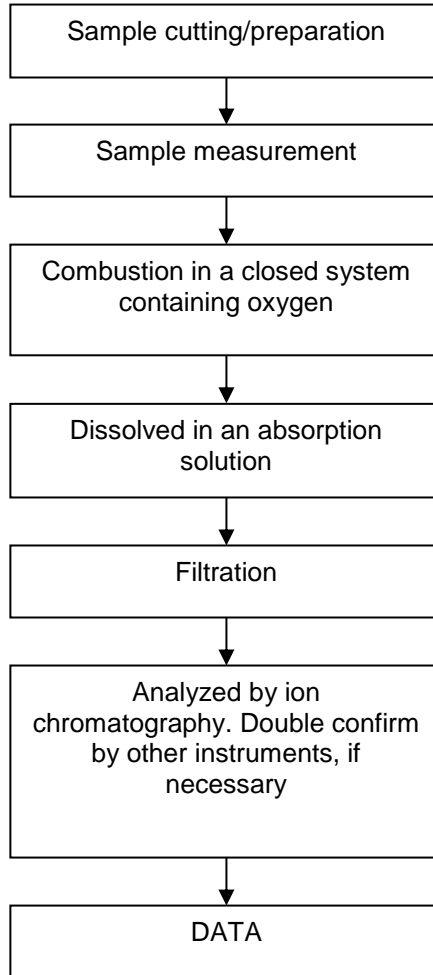


### PFASs/ PFOS/PFOA Testing Flow Chart

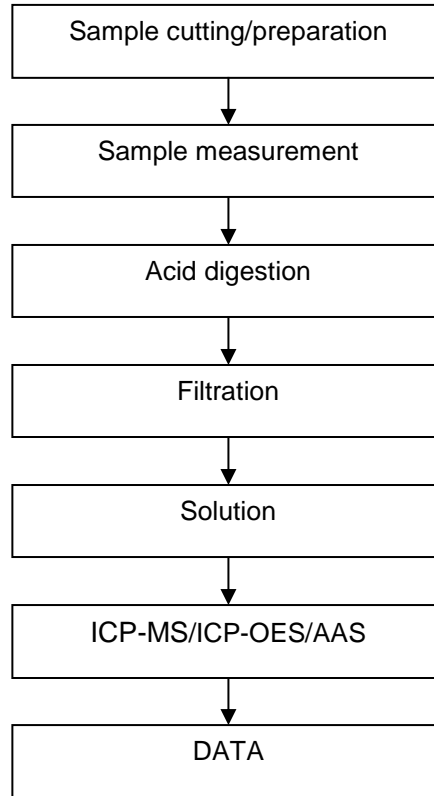


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### Halogen Testing Flow Chart



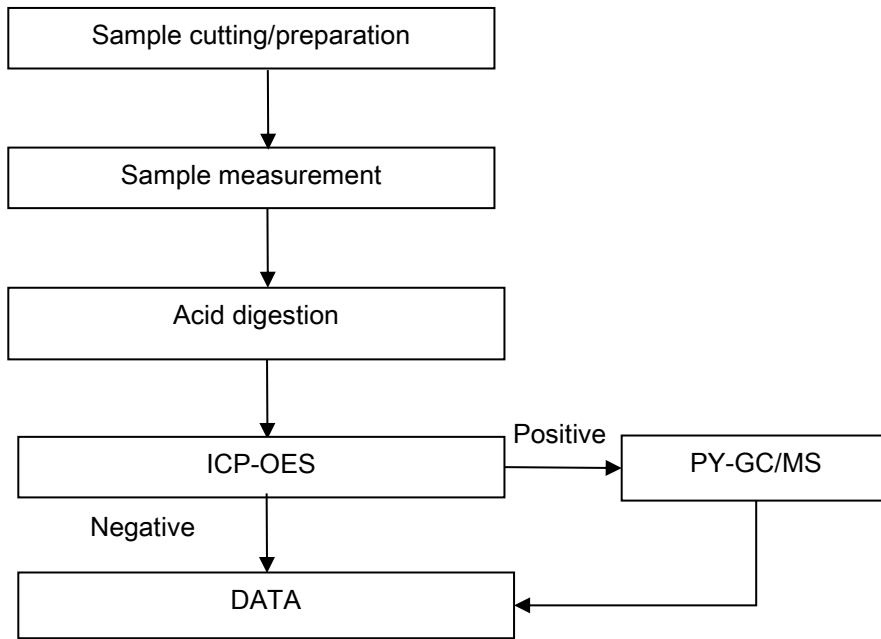
### Elements Testing Flow Chart



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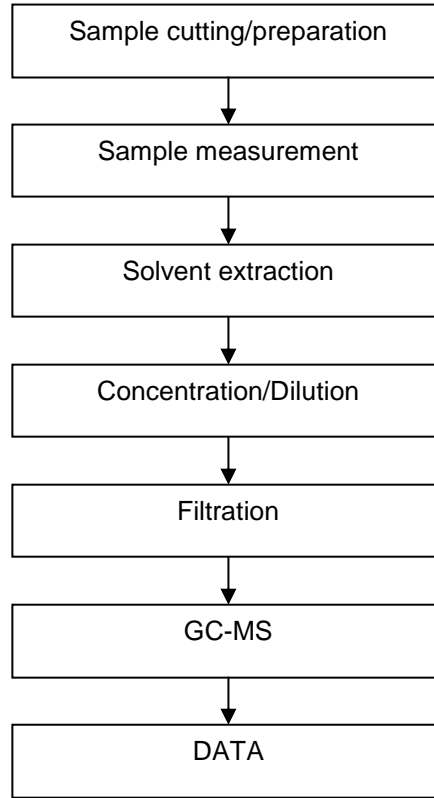
#### Red phosphorus Testing Flow Chart



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### HBCDD Testing Flow Chart



Sample Photo:



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\*\*\* End of Report \*\*\*

