

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 1 of 13

Applicant: Beijing Shian Technology Instrument Co., Ltd**Contact information:** No.623-625, Linji industrial Park, No.53 Shunren Road, Linhe Developing Zone, Shunyi District, Beijing, China**The following sample(s) was (were) submitted and identified by client as:**

Sample Description : Air Quality Monitor
Model No. : SA1200P
Series Model : SA1300P, SA1500P, SA2000, SA5000
Brand : SA
Manufacturer : Beijing Shian Technology Instrument Co., Ltd
Address : No.623-625, Linji industrial Park, No.53 Shunren Road, Linhe Developing Zone, Shunyi District, Beijing, China
Sample Received Date : Oct. 15, 2019
Testing Period : From Oct. 15, 2019 to Dec. 26, 2019
Test Request : Please refer to next page(s).
Test Result(s) : Please refer to next page(s).

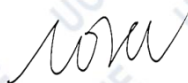
Signed for and on behalf of Shen Zhen UONE Test Co., LTD.

Prepared by



Marcia Deng

Checked by



Nora Deng

Approved by



Pascal Shi

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 2 of 13

.....

Summary of Test Results (Tested parts are required partially by client):

TEST REQUEST**CONCLUSION**

RoHS Directive 2011/65/EU and its subsequent amendments & Directive (EU) 2015/863

To determine Lead (Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)),

(1) Polybrominated Biphenyls (PBBs) and Polybrominated DiphenylEthers (PBDEs)
content by screening test and chemical test**PASS**

(2) To determine Phthalates (DBP, BBP, DEHP, DIBP) content by chemical test

PASS

.....

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 3 of 13

Test Material List

Material No.	Description (Location)	Photo(s) of tested materials
1	White plastic (case)	
2	White plastic cover	
3	Silver tape	
4	Transparent plastic (screen)	
5	Black foam	
6	Silver metal (pin)	
7	White plastic (terminal housing)	
8	White semi-transparent adhesive	
9	Black inner plastic	
10	Silver metal (pin)	
11	Copper metal (wire)	
12	Half a cellophane tape	
13	Silver metal (screw)	
14	Black plastic case	
15	Silver metal (patch)	
16	Silver metal (pin)	
17	Copper metal (coil)	
18	Black body (triode, PCB)	
19	Black body (resistor, PCB)	

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

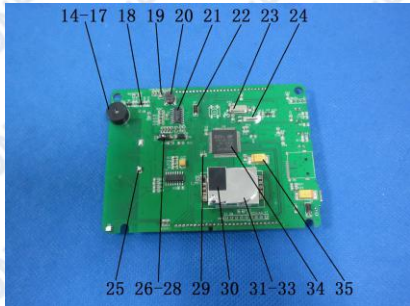
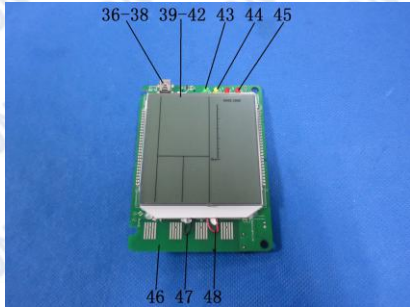
Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 4 of 13

Material No.	Description (Location)	Photo(s) of tested materials	
20	Grey body (inductor, PCB)		
21	Black body (integrated circuit, PCB)		
22	Black body (diode, PCB)		
23	Silver metal body (crystal oscillator, PCB)		
24	Silver metal body (crystal oscillator, PCB)		
25	Silver metal (solder)		
26	White plastic (switch)		
27	Black plastic case		
28	Copper metal (connector)		
29	Brown body (capacitor, PCB)		
30	Black foam		
31	Plastic case with silver coating		
32	Black PCB		
33	Black plastic (row insert)		
34	Black body (integrated circuit, PCB)		
35	Yellow body (capacitor, PCB)		
36	Silver metal (socket)		
37	Copper metal (pin)		
38	Black inner plastic		
39	Grey glass (screen)		
40	White plastic film		
41	Transparent plastic board		
42	Silver metal (pin)		
43	Green plastic (lampshade)		
44	Yellow plastic (lamp shade)		
45	Red plastic (lamp shade)		
46	Green PCB		
47	Black plastic (cable)		

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

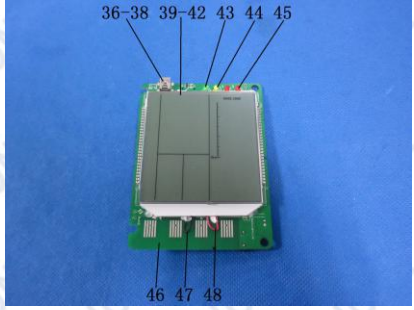
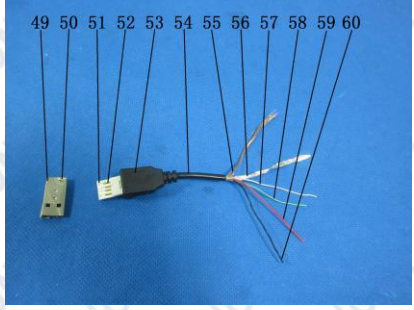
Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 5 of 13

Material No.	Description (Location)	Photo(s) of tested materials
48	Red plastic (cable)	
49	Silver metal (USB)	
50	Silver metal (solder)	
51	White inner plastic	
52	Gold metal (pin)	
53	Black plastic (plug)	
54	Black plastic (cable)	
55	Copper metal (wire)	
56	Silver foil	
57	White plastic (cable)	
58	Green plastic (cable)	
59	Red plastic (cable)	
60	Black plastic (cable)	
61	Silver metal (solder)	
62	Silver metal (socket)	
63	Black plastic (plug)	
64	Gold metal (pin)	

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 6 of 13

Test Result(s):

(1) Lead (Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls (PBBs) and Polybrominated DiphenylEthers (PBDEs)

Test Method: IEC62321-3-1: 2013, IEC62321-4: 2013+A1:2017, IEC62321-5: 2013, IEC62321-6: 2015, IEC 62321-7-1:2015, IEC 62321-7-2: 2017, analyzed by EDXRF & ICP-OES & GC-MS & UV-Vis.

No.	EDXRF Result ⁽¹⁾					Chemical Result ⁽²⁾ (mg/kg)	Remark ⁽³⁾	Conclusion
	Pb	Cd	Hg	Cr	Br			
1	BL	BL	BL	BL	BL	—	—	PASS
2	BL	BL	BL	BL	BL	—	—	PASS
3	BL	BL	BL	BL	BL	—	—	PASS
4	BL	BL	BL	BL	BL	—	—	PASS
5	BL	BL	BL	BL	BL	—	—	PASS
6	BL	BL	BL	BL	NA	—	—	PASS
7	BL	BL	BL	BL	BL	—	—	PASS
8	BL	BL	BL	BL	BL	—	—	PASS
9	BL	BL	BL	BL	BL	—	—	PASS
10	BL	BL	BL	BL	NA	—	—	PASS
11	BL	BL	BL	BL	NA	—	—	PASS
12	BL	BL	BL	BL	BL	—	—	PASS
13	BL	BL	BL	BL	NA	—	—	PASS
14	BL	BL	BL	BL	BL	—	—	PASS
15	BL	BL	BL	BL	NA	—	—	PASS
16	BL	BL	BL	BL	NA	—	—	PASS
17	BL	BL	BL	BL	NA	—	—	PASS
18	BL	BL	BL	BL	BL	—	—	PASS
19	BL	BL	BL	BL	BL	—	—	PASS
20	BL	BL	BL	BL	BL	—	—	PASS
21	BL	BL	BL	BL	BL	—	—	PASS
22	BL	BL	BL	BL	BL	—	—	PASS
23	BL	BL	BL	BL	NA	—	—	PASS

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 7 of 13

No.	EDXRF Result ⁽¹⁾					Chemical Result ⁽²⁾ (mg/kg)	Remark ⁽³⁾	Conclusion
	Pb	Cd	Hg	Cr	Br			
24	BL	BL	BL	BL	NA	—	—	PASS
25	BL	BL	BL	BL	NA	—	—	PASS
26	BL	BL	BL	BL	BL	—	—	PASS
27	BL	BL	BL	BL	BL	—	—	PASS
28	BL	BL	BL	BL	NA	—	—	PASS
29	BL	BL	BL	BL	BL	—	—	PASS
30	BL	BL	BL	BL	BL	—	—	PASS
31	BL	BL	BL	BL	BL	—	—	PASS
32	BL	BL	BL	BL	BL	—	—	PASS
33	BL	BL	BL	BL	X	PBBs: N.D. PBDEs: N.D.	—	PASS
34	BL	BL	BL	BL	BL	—	—	PASS
35	BL	BL	BL	BL	BL	—	—	PASS
36	BL	BL	BL	BL	NA	—	—	PASS
37	BL	BL	BL	BL	NA	—	—	PASS
38	BL	BL	BL	BL	BL	—	—	PASS
39	BL	BL	BL	BL	BL	—	—	PASS
40	BL	BL	BL	BL	BL	—	—	PASS
41	BL	BL	BL	BL	BL	—	—	PASS
42	BL	BL	BL	BL	NA	—	—	PASS
43	BL	BL	BL	BL	BL	—	—	PASS
44	BL	BL	BL	BL	BL	—	—	PASS
45	BL	BL	BL	BL	BL	—	—	PASS
46	BL	BL	BL	BL	BL	—	—	PASS
47	BL	BL	BL	BL	BL	—	—	PASS
48	BL	BL	BL	BL	BL	—	—	PASS
49	BL	BL	BL	BL	NA	—	—	PASS

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 8 of 13

No.	EDXRF Result ⁽¹⁾					Chemical Result ⁽²⁾ (mg/kg)	Remark ⁽³⁾	Conclusion
	Pb	Cd	Hg	Cr	Br			
50	BL	BL	BL	BL	NA	—	—	PASS
51	BL	BL	BL	BL	BL	—	—	PASS
52	BL	BL	BL	BL	NA	—	—	PASS
53	BL	BL	BL	BL	BL	—	Dec. 23, 2019	PASS
54	BL	BL	BL	BL	BL	—	—	PASS
55	BL	BL	BL	BL	NA	—	—	PASS
56	BL	BL	BL	BL	NA	—	—	PASS
57	BL	BL	BL	BL	BL	—	—	PASS
58	BL	BL	BL	BL	BL	—	—	PASS
59	BL	BL	BL	BL	BL	—	—	PASS
60	BL	BL	BL	BL	BL	—	—	PASS
61	BL	BL	BL	BL	NA	—	—	PASS
62	BL	BL	BL	BL	NA	—	—	PASS
63	BL	BL	BL	BL	BL	—	Dec. 23, 2019	PASS
64	BL	BL	BL	BL	NA	—	—	PASS

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 9 of 13

Remark:

- (1) ① Results are obtained by EDXRF for primary screening, and further wet chemical testing by ICP-OES (for Cd, Pb, Hg), UV-VIS (for Cr(VI)) and GC/MS (for PBBs, PBDEs) is recommended to be performed, if an inconclusive result was found (as "X" in below table) (unit: mg/kg).
- ② OL = Over Limit, BL = Below Limit, X = Inconclusive, NA = Not Applicable.
- ③ The EDXRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	NA	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

Units and limits in EU RoHS Directive 2011/65/EU:

Element	Pb	Cd	Hg	Cr(VI)	PBBs(single)	PBDEs(single)
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit	1000	100	1000	1000	1000	1000

- (2) ① mg/kg = ppm = 0.0001%, N.D. = Not Detected (Less than RL).

② Unit and RL (Report limit) in wet chemical test.

Element	Pb	Cd	Hg	Cr(VI)	PBBs(single)	PBDEs(single)
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
RL	2	2	2	2	5	5

③ According to IEC 62321-7-1:2015, result on Cr(VI) for metal sample is shown as Positive/Negative.

Negative = Absence of Cr(VI) coating, Positive = Presence of Cr(VI) coating.

Storage condition and production date of the tested sample are unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

④ According to IEC 62321-3-1:2013, this column represents the results of wet chem test.

- (3) This column represents the exempted decoration of material or other related testing sample's information.

① The test result(s) of Material No. 53, No.63 is(are) shown retest result, and the retest sample(s) was(were) provided by client on Dec. 23, 2019.

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 10 of 13

(2) Phthalates (DBP, BBP, DEHP, DIBP) content

Test Method: IEC 62321-8: 2017, analyzed by gas chromatographic- mass spectrometer (GC-MS).

Substances	DBP	BBP	DEHP	DIBP	Conclusion
CAS No.	84-74-2	85-68-7	117-81-7	84-69-5	
Limit (mg/kg)	1000	1000	1000	1000	
RL (mg/kg)	30	30	30	30	
Material No.	Result (mg/kg)				
1	N.D.	N.D.	N.D.	N.D.	PASS
2	N.D.	N.D.	N.D.	N.D.	PASS
3	N.D.	N.D.	N.D.	N.D.	PASS
4	N.D.	N.D.	N.D.	N.D.	PASS
5	N.D.	N.D.	N.D.	N.D.	PASS
7	N.D.	N.D.	N.D.	N.D.	PASS
8	N.D.	N.D.	N.D.	N.D.	PASS
9	N.D.	N.D.	N.D.	N.D.	PASS
12	N.D.	N.D.	N.D.	N.D.	PASS
14	N.D.	N.D.	N.D.	N.D.	PASS
18	N.D.	N.D.	N.D.	N.D.	PASS
19	N.D.	N.D.	N.D.	N.D.	PASS
20	N.D.	N.D.	N.D.	N.D.	PASS
21	N.D.	N.D.	N.D.	N.D.	PASS
22	N.D.	N.D.	N.D.	N.D.	PASS
26	N.D.	N.D.	N.D.	N.D.	PASS
27	N.D.	N.D.	N.D.	N.D.	PASS
29	N.D.	N.D.	N.D.	N.D.	PASS
30	199	N.D.	N.D.	N.D.	PASS
31	N.D.	N.D.	N.D.	N.D.	PASS
32	N.D.	N.D.	N.D.	N.D.	PASS
33	N.D.	N.D.	N.D.	N.D.	PASS

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

Date: Dec. 26, 2019

Page 11 of 13

Substances	DBP	BBP	DEHP	DIBP	Conclusion
CAS No.	84-74-2	85-68-7	117-81-7	84-69-5	
Limit (mg/kg)	1000	1000	1000	1000	
RL (mg/kg)	30	30	30	30	
Material No.	Result (mg/kg)				
34	N.D.	N.D.	N.D.	N.D.	PASS
35	N.D.	N.D.	N.D.	N.D.	PASS
38	N.D.	N.D.	N.D.	N.D.	PASS
39	N.D.	N.D.	N.D.	N.D.	PASS
40	N.D.	N.D.	N.D.	N.D.	PASS
41	N.D.	N.D.	N.D.	N.D.	PASS
43	N.D.	N.D.	N.D.	N.D.	PASS
44	N.D.	N.D.	N.D.	N.D.	PASS
45	N.D.	N.D.	N.D.	N.D.	PASS
46	N.D.	N.D.	N.D.	N.D.	PASS
47	N.D.	N.D.	N.D.	N.D.	PASS
48	N.D.	N.D.	N.D.	N.D.	PASS
51	N.D.	N.D.	N.D.	N.D.	PASS
53	N.D.	N.D.	N.D.	N.D.	PASS
54	N.D.	N.D.	N.D.	N.D.	PASS
57	N.D.	N.D.	N.D.	N.D.	PASS
58	N.D.	N.D.	N.D.	N.D.	PASS
59	N.D.	N.D.	N.D.	N.D.	PASS
60	N.D.	N.D.	N.D.	N.D.	PASS
63	N.D.	N.D.	N.D.	N.D.	PASS

- Note:**
1. mg/kg = milligram per kilogram (ppm).
 2. RL = report limit.
 3. N.D.=not detected(less than RL).
 4. The test result(s) of Material No. 53, No.63 is(are) shown retest result, and the retest sample(s)

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

Query Password: QW8063

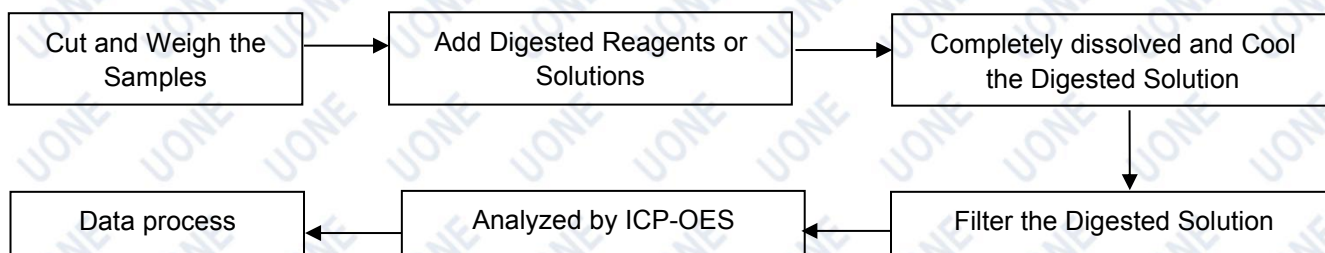
Date: Dec. 26, 2019

Page 12 of 13

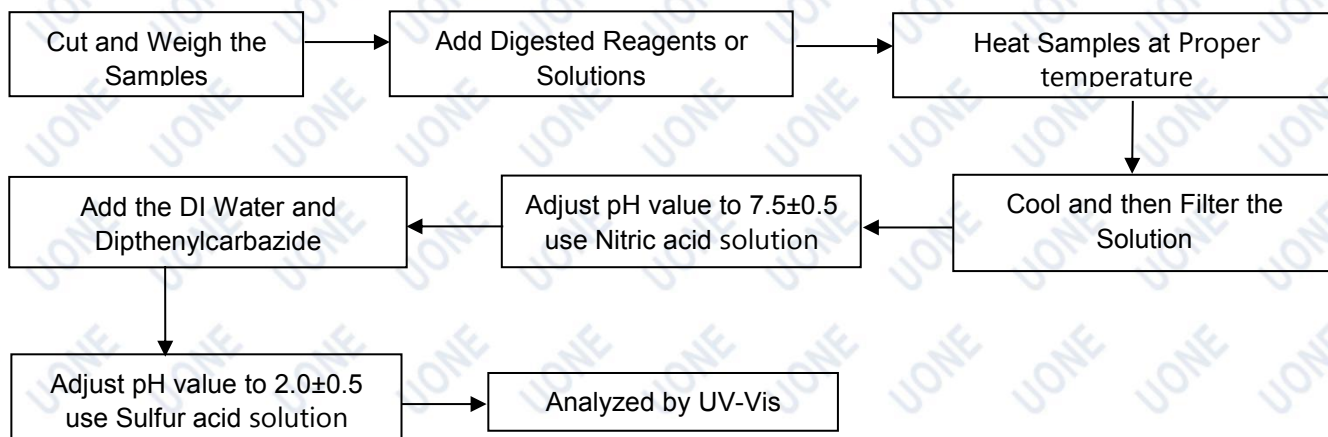
was(were) provided by client on Dec. 23, 2019.

Test Process Flow

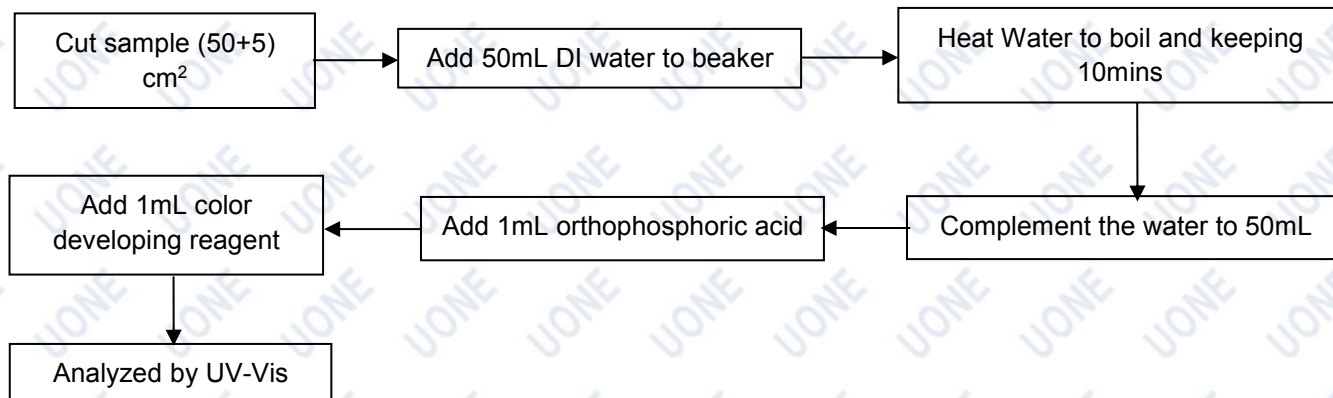
1. Lead, Cadmium, Mercury



2. Hexavalent Chromium (Non-metal)



Hexavalent Chromium (Metal)



This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

Test Report

Report No.: U01602191015110-1E

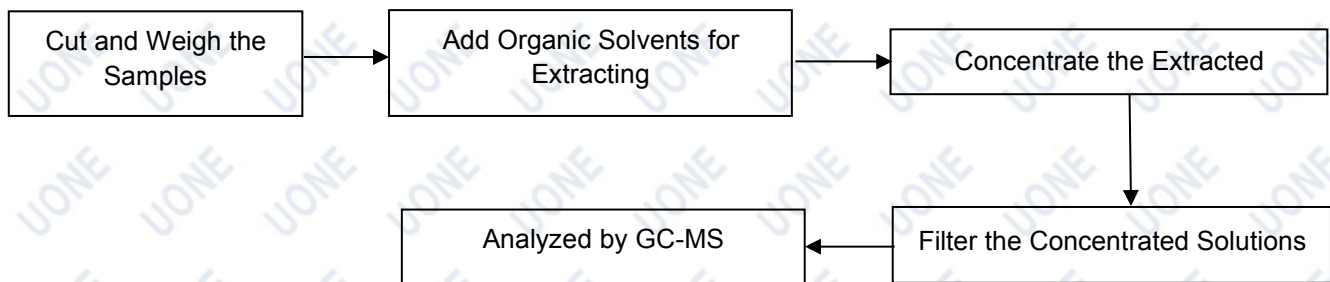
Query Password: QW8063

Date: Dec. 26, 2019

Page 13 of 13

Test Process Flow (Continued):

3. PBBs & PBDEs, Phthalates



Photo(s) of Sample:



End of Report

This report is considered invalidated without the Special Seal for Inspection of the UONE, This report shall not be altered, increased or deleted. The results shown in this test report refer only to the sample tested. Without written approval of UONE, this report shall not be copied and published as advertisement.

This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.