

Test Report

Report No. A2240055863101001

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Company Name SHEN ZHEN EARLYSUN TECHNOLOGY CORP., LTD.
shown on ReportAddress BUILDING #A6,TANGLANG INDUSTRIAL AREA,TAOYUAN STREET,NANSHAN
DISTRICT,SHENZHEN,CHINA.

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant

Sample Name Solder Paste
Part No. ES-660
Sample Received Date Jan. 26, 2024
Testing Period Jan. 26, 2024 to Jan. 31, 2024

Test Requested As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP), Arsenic(As), Beryllium(Be), Antimony(Sb), Hexabromocyclododecane (HBCDD), Phthalates, Tetrabromobisphenol A (TBBP-A), Middle Chain Chlorinated Paraffins (MCCPs) in the submitted sample(s).

Test Method Please refer to the following page(s).

Test Result(s) Please refer to the following page(s).

Conclusion

Tested Sample	According to standard/directive	Result
Submitted Sample	RoHS Directive 2011/65/EU with amendment (EU) 2015/863	PASS

PASS means that the results shown on the report comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863.



Approved by

Hill Zheng

Date

Jan. 31, 2024

Hill Zheng

Technical Manager

No. R677501726

CTI Building, Xing Dong Community, Xin'an Sub-district, Bao'an District, Shenzhen City, Guangdong Province, P.R. China

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Test Method

Test Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS
Arsenic(As)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
Beryllium(Be)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
Antimony(Sb)	Refer to US EPA 3050B:1996 & US EPA 6010D:2018	ICP-OES
Hexabromocyclododecane (HBCDD)	IEC 62321-9:2021	GC-MS
Phthalates	Refer to EN 14372:2004(E)	GC-MS
Tetrabromobisphenol A (TBBP-A)	Refer to US EPA 3550C:2007 & US EPA 8270E:2018	GC-MS
Middle Chain Chlorinated Paraffins (MCCPs)	Refer to US EPA 3540C:1996 & US EPA 8270E:2018	GC-MS(NCI)

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Test Result(s)

Tested Item(s)	Result	MDL	Limit
	001		
Lead (Pb)	884892 mg/kg [#]	2 mg/kg	1000 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg	100 mg/kg
Mercury (Hg)	N.D.	2 mg/kg	1000 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	8 mg/kg	1000 mg/kg
Tested Item(s)	Result	MDL	Limit
	001		
Polybrominated Biphenyls (PBBs)			
Monobromobiphenyl	N.D.	5 mg/kg	1000 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg	
Tribromobiphenyl	N.D.	5 mg/kg	
Tetrabromobiphenyl	N.D.	5 mg/kg	
Pentabromobiphenyl	N.D.	5 mg/kg	
Hexabromobiphenyl	N.D.	5 mg/kg	
Heptabromobiphenyl	N.D.	5 mg/kg	
Octabromobiphenyl	N.D.	5 mg/kg	
Nonabromobiphenyl	N.D.	5 mg/kg	
Decabromobiphenyl	N.D.	5 mg/kg	
Tested Item(s)	Result	MDL	Limit
	001		
Polybrominated Diphenyl Ethers (PBDEs)			
Monobromodiphenyl ether	N.D.	5 mg/kg	1000 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg	
Tribromodiphenyl ether	N.D.	5 mg/kg	
Tetrabromodiphenyl ether	N.D.	5 mg/kg	
Pentabromodiphenyl ether	N.D.	5 mg/kg	
Hexabromodiphenyl ether	N.D.	5 mg/kg	
Heptabromodiphenyl ether	N.D.	5 mg/kg	
Octabromodiphenyl ether	N.D.	5 mg/kg	
Nonabromodiphenyl ether	N.D.	5 mg/kg	
Decabromodiphenyl ether	N.D.	5 mg/kg	

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Test Result(s)

Tested Item(s)	Result	MDL	Limit
	001		
Phthalates (DBP, BBP, DEHP, DIBP)			
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg	1000 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg	1000 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg	1000 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg	1000 mg/kg
Tested Item(s)	Result	MDL	
	001		
Arsenic (As)	N.D.		10 mg/kg
Beryllium (Be)	N.D.		2 mg/kg
Antimony (Sb)	N.D.		5 mg/kg
Tested Item(s)	Result	MDL	
	001		
Hexabromocyclododecane (HBCDD)	N.D.		20 mg/kg
Tested Item(s)	Result	MDL	
	001		
Phthalates			
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.		30 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.		50 mg/kg
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.		50 mg/kg
Dipentyl phthalate (DPP/DPENP) CAS#:131-18-0*	N.D.		30 mg/kg
Di-n-hexyl phthalate (DNHP/DHEXP) CAS#:84-75-3*	N.D.		30 mg/kg
Tested Item(s)	Result	MDL	
	001		
Tetrabromobisphenol A (TBBP-A)	N.D.		5 mg/kg
Tested Item(s)	Result	MDL	
	001		
Middle Chain Chlorinated Paraffins (MCCPs)	N.D.		100 mg/kg

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Sample/Part Description

No.	CTI Sample ID	Description
1	001	Grey paste

Remark: The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Arsenic, Beryllium, Antimony.

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL)

-mg/kg = ppm = parts per million

-1000 mg/kg = 0.1%

-#According to the client's statement, the material of the sample(s) fall into exemption items 7(a) according to EU Directive 2011/65/EU: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

Note: “*” indicates the item(s)/method(s) is (are) not in CNAS accreditation scope.

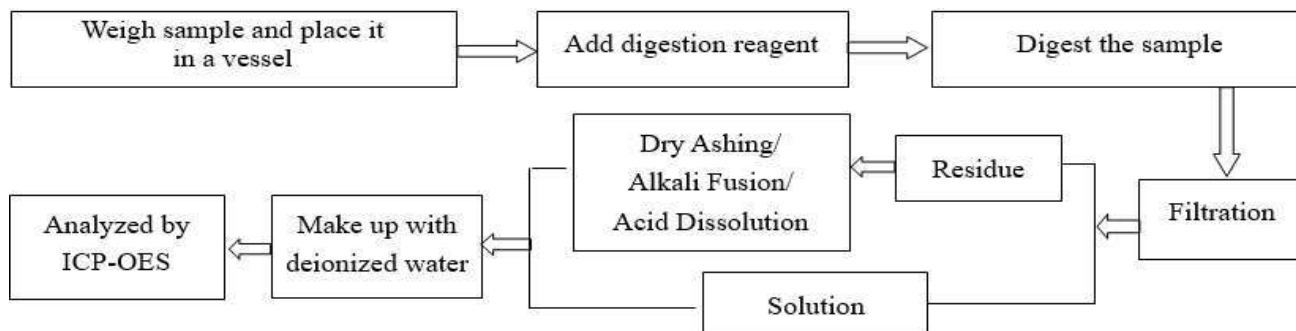
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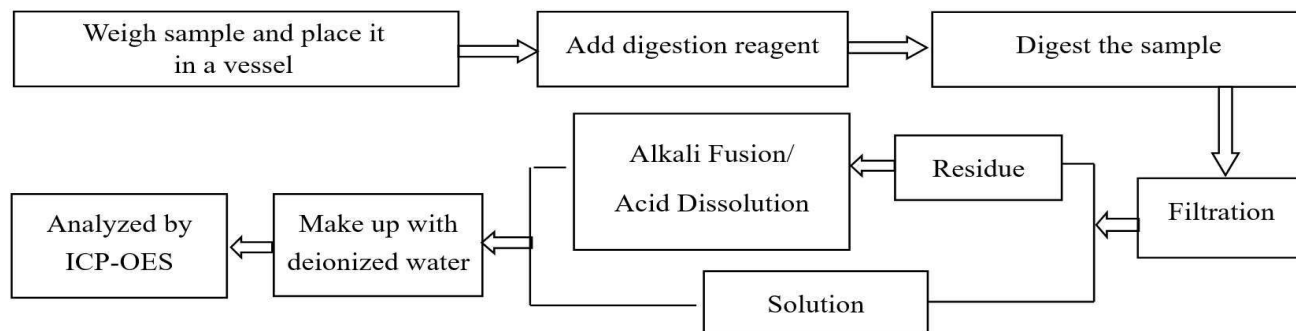
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Test Process

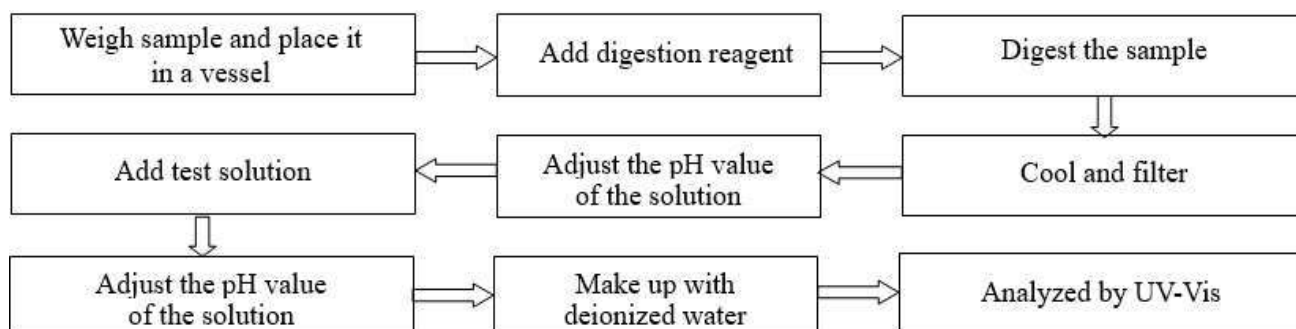
1. Lead (Pb), Cadmium (Cd), Chromium (Cr)



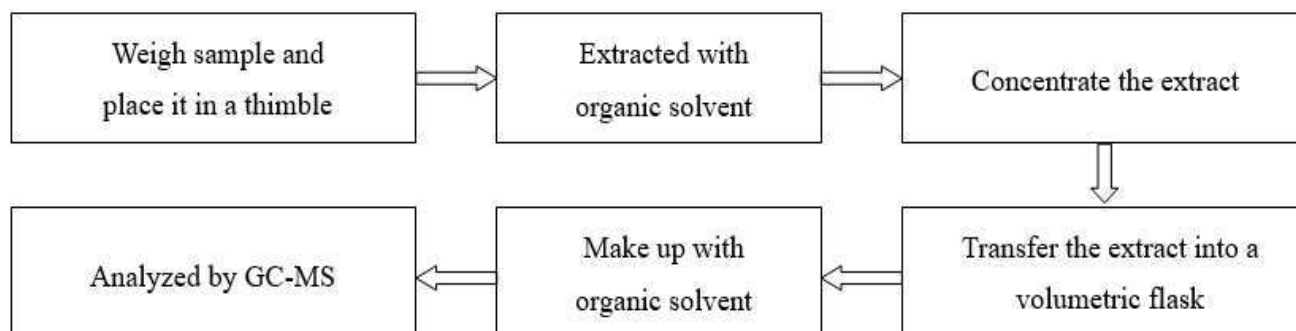
2. Mercury (Hg)



3. Hexavalent Chromium (Cr(VI))



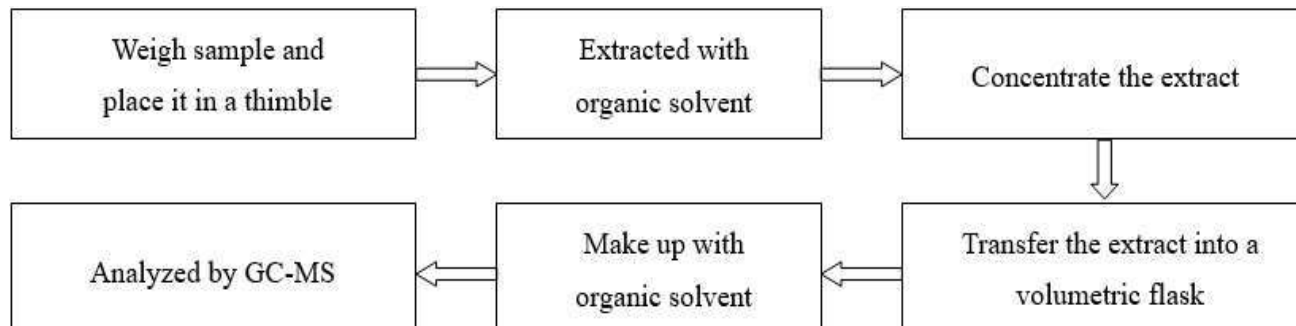
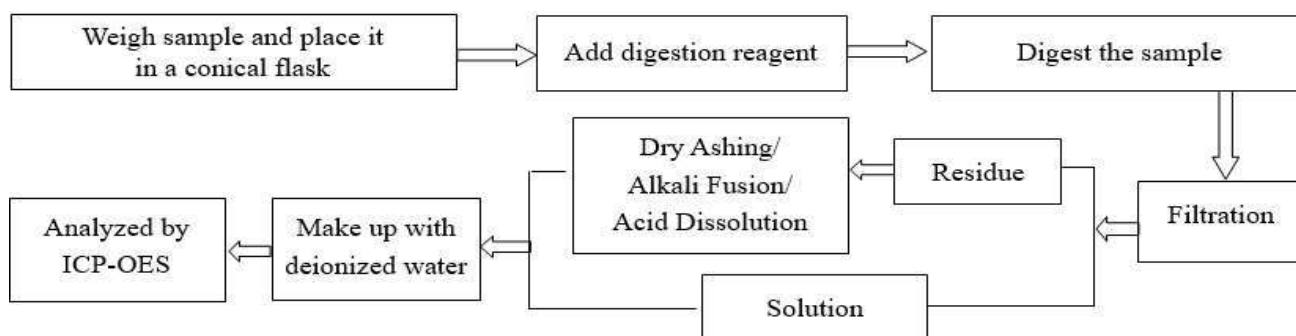
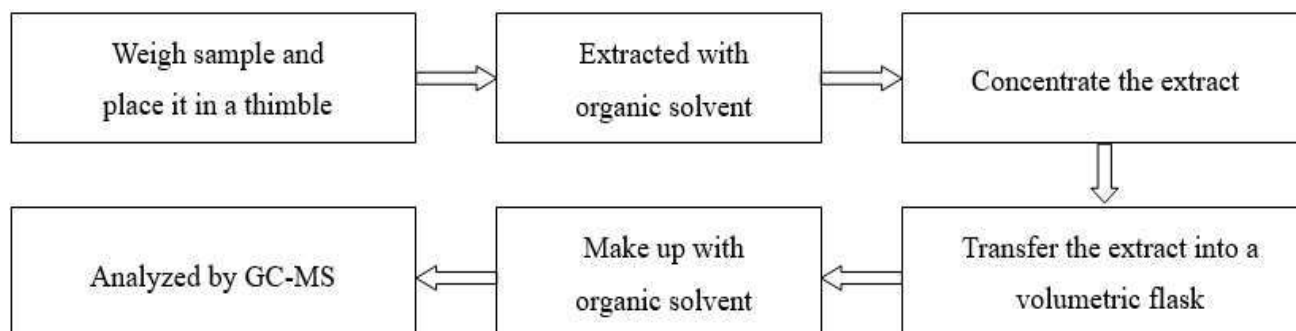
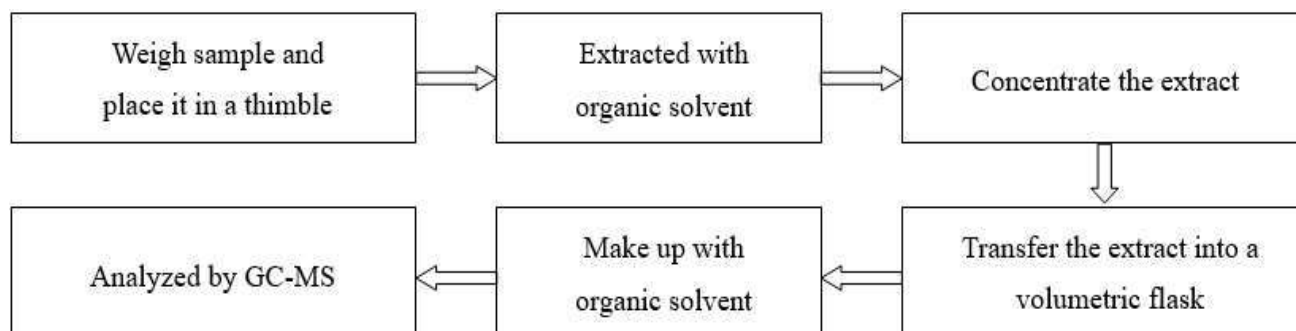
4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)



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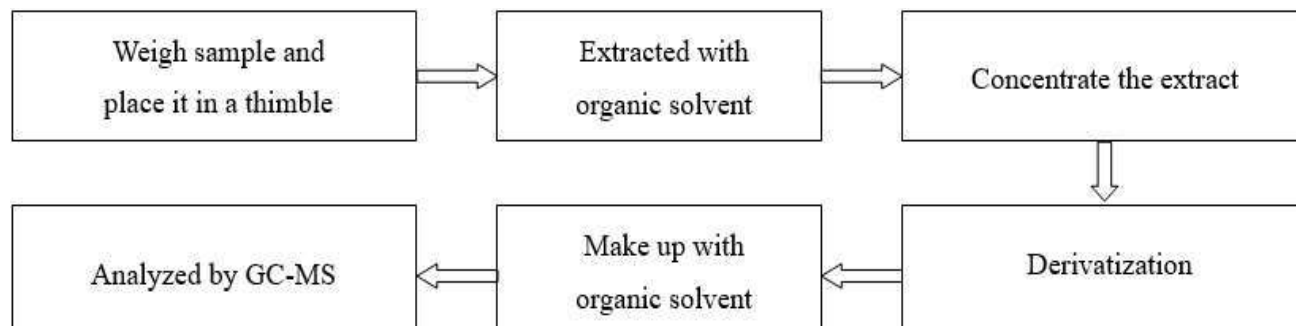
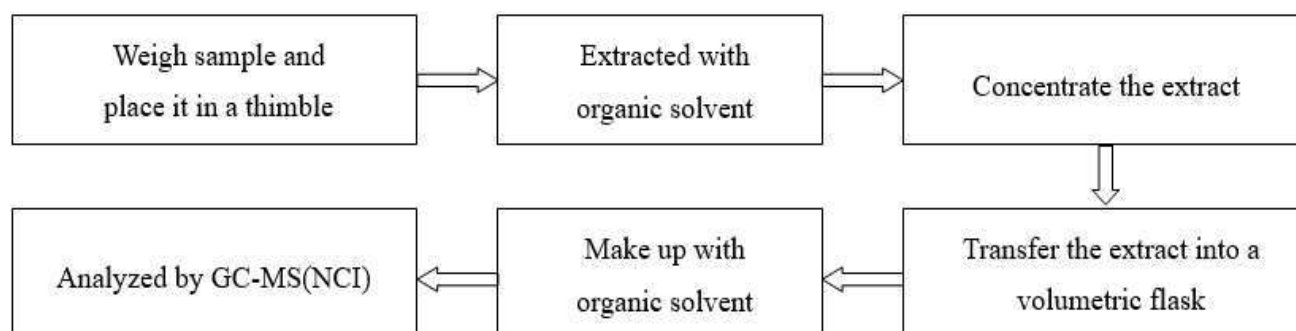
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5. Phthalates (DBP, BBP, DEHP, DIBP)**6. Arsenic(As), Beryllium(Be), Antimony(Sb)****7. Hexabromocyclododecane (HBCDD)****8. Phthalates**

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9. Tetrabromobisphenol A (TBBP-A)**10. Middle Chain Chlorinated Paraffins (MCCPs)**

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Photo(s) of the sample(s)



Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. 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 / CNAS-GL015:2022;
5. Without written approval of CTI, this report can't be reproduced except in full;
6. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

*** End of report ***

Appendix

Client Reference Information

B3, B314, B3143, B317, B330,
B351, B353, B3550, B364, B38, B4,
B414, B4143, B417, B430, B451, B453,
B4550, B464, B48, B5, B5143, B517,
B530, B551, B553, B5550, B564, B58,
B68, ES-300, ES-330, ES-3373, ES-400,
ES-500, ES-510, ES-530, ES-650, ES-660,
ES-661, ES-662, ES-663, ES-664, ES-665,
ES-666, ES-667, ES-668, ES-669, G493,
G494, G53, G54, G603, G624, G63,
G63a, G64, G643, G644, G64a, ES-810,
ES-820, ES-830, ES-860, ES-880, JS-665,
JS-666, JS-667, JS-668, JS-669, MS-555,
MS-556, MS-557, MS-558, MS-559

Statement:

1. The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. The Appendix Information is/are the supplement(s) for the Report A2240055863101001.