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est Report	No.:	SHAEC23007623301	Date:	Jun 13, 2023	Page 1 of 12		
Client Name: JIEJI	E SEMIC	ONDUCTOR CO.,LTD					
		NGSHAN ROAD,SU TONG S NG CITY,JIANGSU PROVIN		ND TECHNOLO	OGY INDUSTRIAL		
Sample Name:	Ν	lesa Device Chip(5 inch)					
Model No.:	51	nch					
Client Ref. Information	n: 4i	nch					
The above sample(s)	and infor	mation were provided by the o	client.				
SGS Job No.:	т	IC1020230605114311M34O					
Sample Receiving Dat	te: Ju	Jun 06, 2023 Jun 06, 2023 ~ Jun 12, 2023 Select test(s) as requested by the client.					
Testing Period:	Ju						
Test Requested:	S						
Test Method(s):	Р	lease refer to next page(s).					
Test Result(s):	Р	lease refer to next page(s).					
Test Requirement					Conclusion		
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)				ylhexyl)	Pass		
Halogen			See Results				
Hexabromocyclodod	ecane (H	BCDD)			See Results		
Perfluorooctanesulfo	nate (PF	OS) and its derivatives and P	erfluoroocta	anoic	See Results		

Signed for and on behalf of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

y Lon

Jenny Lan Approved Signatory

Acid (PFOA).





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Test Report

No.: SHAEC23007623301

Date: Jun 13, 2023

Test Result(s):

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	SHA23-0076233-0001.C001	Silvery/grey chip

Remarks:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), 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)	Limit	Unit(s)	MDL	A1
Cadmium(Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	9011
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Polybromobiphenyl (PBBs)	1000	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)	1000	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
Nonabromodiphenylether (NonaBDE)	-	mg/kg	5	ND
Decabromodiphenylether (DecaBDE)	-	mg/kg	5	ND
Dibutyl Phthalate(DBP)	1000	mg/kg	50	ND
Benzyl Butyl Phthalate(BBP)	1000	mg/kg	50	ND



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	Test Item(s)		Limit	Unit(s)	MDL	A1	
	Bis-(2-ethylhexyl) Phthala	te(DEHP)	1000	mg/kg	50	ND	
	Diisobutyl Phthalate(DIBF	')	1000	mg/kg	50	ND	

Notes:

(1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.

(2) IEC 62321 series is equivalent to EN 62321 series.

(3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

(4) ▲According to the declaration from the client, Lead (Pb) in No.A1 is exempted by EU RoHS directive 2011/65/EU based on |ANNEX III 7(c)-I|: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

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
Bromine(Br)	mg/kg	50	ND
lodine(l)	mg/kg	50	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
	134237-50-6			
	/134237-51-7			
Hexabromocyclododecane (HBCDD)	/134237-52-8	mg/kg	20	ND
	/25637-99-4	00		
	/3194-55-6			

Perfluorooctanesulfonate (PFOS) and its derivatives and Perfluorooctanoic Acid (PFOA).

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
Perfluorooctane sulfonates (PFOS) and its derivatives	-	mg/kg	-	ND
Perfluorooctanesulfonic acid (PFOS)^	1763-23-1	mg/kg	10	ND
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	mg/kg	10	ND



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Test Item(s)	CAS No.	Unit(s)	MDL	A1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	mg/kg	10	ND
2-(N-ethylperfluoro-1- octanesulfonamido)-ethanol (EtFOSE)	1691-99-2	mg/kg	10	ND
2-(N-methylperfluoro-1- octanesulfonamido)- ethanol (MeFOSE)	24448-09-7	mg/kg	10	ND
Perfluorooctane Sulfonamide (PFOSA)	754-91-6	mg/kg	10	ND
Perfluorooctanoic Acid (PFOA) and its salts+	-	mg/kg	10	ND

Notes:

т

(1) + PFOA refer to its salts including PFOA-Na (CAS No.: 335-95-5), PFOA-K (CAS No.: 2395-00-8), PFOA-Ag (CAS No.: 335-93-3), PFOA-F (CAS No.: 335-66-0) and APFO (CAS No.: 3825-26-1);

(2) ^ PFOS including PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH4 (CAS No.: 29081-56-9), PFOS-NH(OH)2 (CAS No.: 70225-14-8), PFOS-N(C2H5)4 (CAS No.: 56773-42-3), PFOS-DDA(CAS No.: 251099-16-8) and POSF (CAS No.: 307-35-7).

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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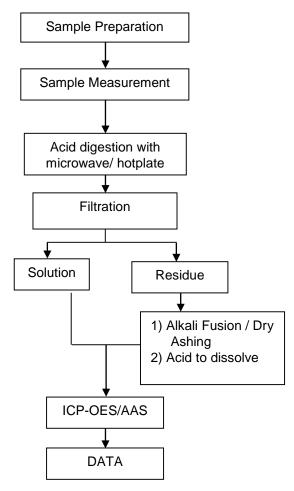
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Elements Testing Flow Chart

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





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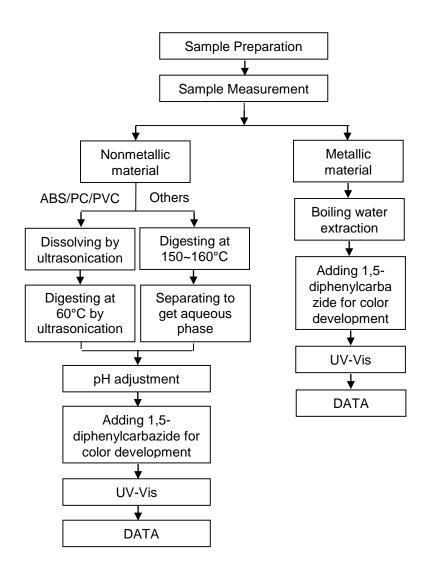


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Test Report

Hexavalent Chromium (Cr(VI)) Testing Flow Chart



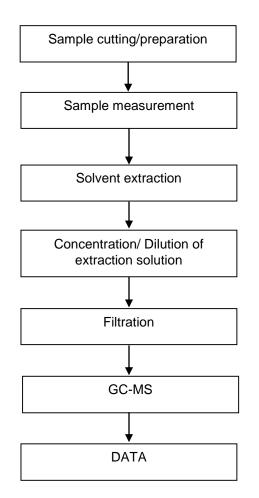


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PBBs/PBDEs Testing Flow Chart





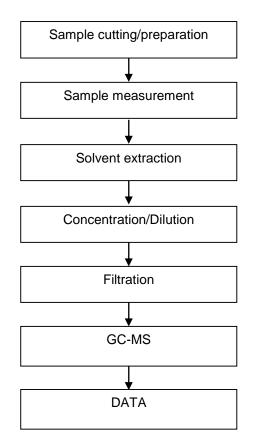
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Phthalates Testing Flow Chart





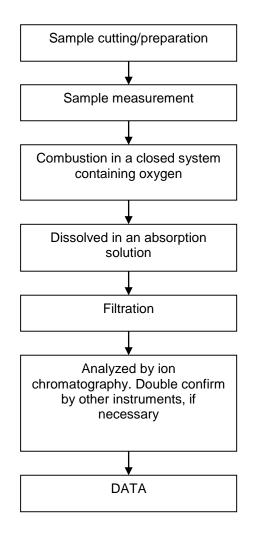
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Halogen Testing Flow Chart



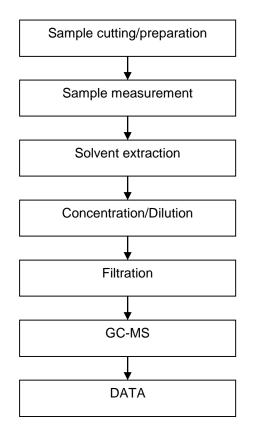


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HBCDD Testing Flow Chart





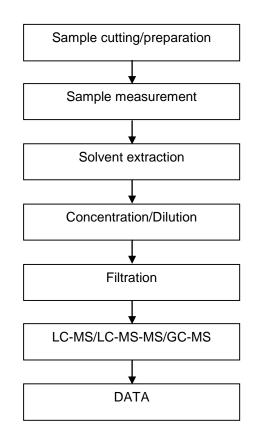
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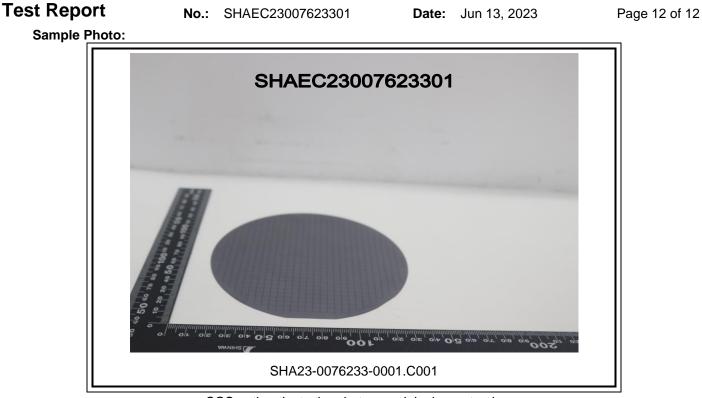
PFASs/ PFOS/PFOA Testing Flow Chart





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