

# Test Report

No.: SHAEC23007706401

Date: Jun 12, 2023

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Client Name: Jiangsu Changjing Electronics Technology Co.,Ltd

Client Address: 13th Floor,C Block,Tengfei building,Yan Chuang Yuan,Nanjing area of China (Jiangsu) pilot Free Trade Zone

Sample Name: Semiconductor device

Model No.: SOT-23

Client Ref. Information: See the attachement

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

SGS Job No.: SHP23-003733

Sample Receiving Date: Jun 07, 2023

Testing Period: Jun 07, 2023 ~ Jun 12, 2023

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
European Regulation POPs (EU) 2019/1021 and its amendments - Persistent organic pollutants (POPs)	Pass

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

Tom Ni

Tom Ni  
Approved Signatory

scan to see the report



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**Test Result(s):**

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	SHA23-0077064-0001.C001	Black body with silvery metal

Remarks:

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

**European Regulation POPs (EU) 2019/1021 and its amendments - Persistent organic pollutants (POPs)**

Test Method: With reference to SGS In-House method , analysis was performed by GC-MS,GC-ECD, HPLC-DAD-MS.

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
Hexachlorobutadiene	87-68-3	Banned	mg/kg	5	ND
Pentachlorobenzene	608-93-5	Banned	mg/kg	5	ND
Hexachlorobenzene	118-74-1	10	mg/kg	5	ND
Polychlorinated biphenyls (PCB)	1336-36-3 and others	Banned	mg/kg	5	ND
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	100	mg/kg	10	ND
Polychlorinated naphthalenes (PCN)	70776-03-3 and others	Banned	mg/kg	5	ND
Pentachlorophenol(PCP), its salts and esters	87-86-5 and others	5	mg/kg	0.5	ND
Hexabromodiphenyl (HexaBB)	36355-01-8	Banned	mg/kg	5	ND
Tetrabromodiphenylether(TetraBDE)	40088-47-9 and others	10	mg/kg	5	ND
Pentabromodiphenyl ethers (PentaBDE)	32534-81-9 and others	10	mg/kg	5	ND
Hexabromodiphenylether(HexaBDE)	36483-60-0 and others	10	mg/kg	5	ND
Heptabromodiphenylether (HeptaBDE)	68928-80-3 and others	10	mg/kg	5	ND
Decabromodiphenyl ether (DecaBDE)	1163-19-5	10	mg/kg	5	ND
Alkanes, C10-13, chloro(short chain-chlorinated paraffins) (SCCPs)	85535-84-8 and others	1	%	0.005	ND
Perfluorooctane sulfonates (PFOS) and its derivatives	-	10	mg/kg	-	ND
Perfluorooctane sulfonates (PFOS) ^	1763-23-1	-	mg/kg	1	ND
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2	-	mg/kg	1	ND



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Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8	-	mg/kg	1	ND
2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol (EtFOSE)	1691-99-2	-	mg/kg	1	ND
2-(N-methylperfluoro-1-octanesulfonamido)-ethanol (MeFOSE)	24448-09-7	-	mg/kg	1	ND
Perfluorooctane sulfonamide (PFOSA)	754-91-6	-	mg/kg	1	ND
Perfluorooctanoic Acid (PFOA) and its salts+	335-67-1	0.025	mg/kg	0.025	ND
PFOA Related Substances	-	1	mg/kg	-	ND
1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTS)	39108-34-4	-	mg/kg	0.2	ND
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	-	mg/kg	0.2	ND
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	-	mg/kg	0.2	ND
1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7	-	mg/kg	0.2	ND
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	-	mg/kg	0.2	ND
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	-	mg/kg	0.2	ND
Perfluoro-1-iodooctane (PFOI)	507-63-1	-	mg/kg	0.2	ND
<b>Conclusion</b>					<b>Pass</b>

## Notes:

- (1) Substances in Annex I of European Regulation POPs (EU) 2019/1021 are prohibited in preparations and constituents of articles unless otherwise specified.
- (2) The chemical analysis of substances is performed by means of currently available analytical techniques against substances laid down in Test Requested.
- (3) Detected substance(s) may come from one or more components in composite testing. Client is suggested to identify the component(s) and the exact concentration of the substance(s) by requesting further quantitative analysis from the laboratory.
- (4) Exemption: Alkanes C10-13, chloro (short chain-chlorinated paraffins) (SCCPs) < 1.0% in preparation, <0.15% for articles.
- (5) Exemptions: HBCDD, No more than 100 mg/kg as an unintentional trace contaminant in substances, mixtures, articles or flame-retarded parts of articles.
- (6) Exemptions: Perfluorooctane sulfonates (PFOS) and its derivatives (acid, metal salt, halide, amide, and other derivatives including polymers) ≤ 10 mg/kg for preparations, < 0.1% (w/w) for articles and < 1 ug/m<sup>2</sup> for textiles and coated materials.
- (7) ^ PFOS including PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH<sub>4</sub> (CAS No.: 29081-56-9), PFOS-NH(OH)<sub>2</sub> (CAS No.: 70225-14-8), PFOS-N(C<sub>2</sub>H<sub>5</sub>)<sub>4</sub> (CAS No.: 56773-42-3), PFOS-DDA (CAS No.: 251099-16-8) and POSF (CAS No.: 307-35-7).
- (8) + PFOA and 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).



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(9) Exemptions: Tetrabromodiphenyl ether, pentabromodiphenyl ether, hexabromodiphenyl ether, heptabromodiphenyl ether and decabromodiphenyl ether are  $\leq 10$  mg/kg for substances, and Sum of tetra-, penta-, hexa-, hepta- and decaBDE  $\leq 500$  mg/kg for mixtures or articles, this restriction is subject to subject to review and assessment by the European by 16 July 2021.

(10) Exemption: Tetrabromodiphenyl ether, pentabromodiphenyl ether, hexabromodiphenyl ether, heptabromodiphenyl ether and decabromodiphenyl ether in electrical and electronic equipment within the scope of Directive 2011/65/EU are exempted.

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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### Attachment:

DFN、PDFN、SOD-123/323/523/723/923/123FL、SOP8/14/16/18/20/24、  
SOT-23 (-XL) /89 (-XL) /143/223/323/343/353/363/523/553/563/723、  
TO-92/92L/92S/92MOD/126/220 (-XL) /220A/220F/227/247/251/251S  
/252/263/277/3P、TSSOP8、FBP、CSP、QFN、TSOT、WBFBP、WBHFBP、  
MSOP8、ESOP8、DIP8/14/16/18、SOP8PP、SOP10、TSSOP14、ETSSOP16、  
WBLGA6×6-44L、6GBJ、ABS、DB、DBS、GBJ、GBL、GBP、GBU、JBF、JBSL、  
KBL、KBP、KBU、MBF、MBS、SMA、SMAF、SMAG、SMAJ、SMB、SMBF、  
SMBG、SMBJ、SMC、SMCG、SMD、R-1、R-6、A-405、DO-15、DO-27、DO-41、  
UMSB、SOD-123HE、TO-220F-B、TO-220-2L、TO-220F-2L、TO-247-3L、  
TO-247-2L、4GBJ、D3K、TO-92K/126K/220AK/220BK/220CK/220FK/262K  
/263K/3PK/247K/252-2LK、SOT-223-3LK、SOT-23-3LK、SOT-89K、MINI-MELF、  
MELF、LL-41、LL-34、DO-41(G)、DO-35(G)、DL-41、DL-35



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