Test Report

No.: CANEC25015059705 **Date:** Jul 02, 2025

Client Name: SHENZHEN YONGYUAN MICROELECTRONICS TECHNOLOGY CO.,LTD

Client Address: C2 BUILDING RUIMING INDUSTRIAL PARK, NO.44 HEXIU WEST ROAD，ZHANCHENG，FUHAI STREET,BAO'AN DIST, SHENZHEN

Sample Name: MOS

Model No.: SOT-23

Client Ref. Information: QFN2*2-6L、QFN3*3-8L、SOP-8L、SOT89-3L、ESOP-8L、TO-92-3L、TO94-4L、SOT223-3L、SOT23L、SOT23-3L、SOT23-5L、SOT23-6L、SOT323-3L、SOT363-6L、SOT523-3L、SOT723-3L

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

SGS Job No.: SZP25-031683

Sample Receiving Date: Jun 24, 2025

Testing Period: Jun 24, 2025 ~ Jul 02, 2025

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) 2024/2570 amending to Regulation (EU) 2019/1021 Annex I–Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD)	Pass
European Regulation POPs (EU) 2019/1021 Annex I– Alkanes C_{10}-C_{13}, chloro (short chain-chlorinated paraffins) (SCCPs)	Pass
European Regulation POPs (EU) 2019/1021 Annex I–Halogenated compounds	Pass
European Regulation POPs (EU) 2023/1608 amending to Regulation (EU) 2019/1021 Annex I-PFHxS, its salts and PFHxS related compounds	Pass
European Regulation POPs (EU) 2020/784 amending to Regulation (EU) 2019/1021 Annex I - Perfluorooctanoic acid (PFOA) and its salts, PFOA-Related Substances, Perfluorooctane sulfonic acid (PFOS) and its derivatives	Pass

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

Arsene Ye

Arsene Ye
Approved Signatory

Scan to see the report

E9AC7576

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

Test Result(s):

Test Part Description：

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	CAN25-0150597-0001.C001	"MOS"

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) 2024/2570 amending to Regulation (EU) 2019/1021 Annex I– Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α-HBCDD, β-HBCDD, γ-HBCDD)

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

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
Hexabromocyclododecane (HBCDD) and its main diastereoisomers (α-HBCDD, β-HBCDD, γ-HBCDD)	25637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8	75	mg/kg	20	ND
Conclusion					**Pass**

Notes:

(1) The exemptions laid down shall be reviewed and assessed by the Commission by 1 January 2026.

European Regulation POPs (EU) 2019/1021 Annex I– Alkanes C_{10}-C_{13}, chloro (short chain-chlorinated paraffins) (SCCPs)

Test Method: With reference to ISO 22818:2021, analysis was performed by GC-NCI-MS.

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
Alkanes,C_{10}-C_{13}, chloro (short chain-chlorinated paraffins) (SCCPs)	85535-84-8 and others	1500	mg/kg	50	ND
Conclusion					**Pass**

European Regulation POPs (EU) 2019/1021 Annex I–Halogenated compounds

Test Method: SGS In-House method, analysis was performed by GC-ECD or GC-MS.

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
Hexachlorobutadiene	87-68-3	Prohibited	mg/kg	5	ND
Pentachlorobenzene	608-93-5	Prohibited	mg/kg	5	ND
Polychlorinated biphenyls (PCBs)	1336-36-3 and others	50	mg/kg	5	ND

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86–20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 sgs.china@sgs.com

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
Polychlorinated naphthalenes (PCNs)	70776-03-3 and others	Prohibited	mg/kg	5	ND
Hexabromodiphenyl	36355-01-8	Prohibited	mg/kg	5	ND
Tetrabromodiphenyl ether	40088-47-9 and others	-	mg/kg	5	ND
Pentabromodiphenyl ether	32534-81-9 and others	-	mg/kg	5	ND
Hexabromodiphenyl ether	36483-60-0 and others	-	mg/kg	5	ND
Heptabromodiphenyl ether	68928-80-3 and others	-	mg/kg	5	ND
Decabromodiphenyl ether; (decaBDE)	1163-19-5	-	mg/kg	5	ND
Sum of PBDEs*	-	500	mg/kg	-	ND
Conclusion					**Pass**

Notes:
(1) Sum of PBDEs* Means Sum of Tetrabromodiphenyl ether, Pentabromodiphenyl ether, Hexabromodiphenyl ether, Heptabromodiphenyl ether and Decabromodiphenyl ether.
(2) Exemptions: Tetrabromodiphenyl ether, pentabromodiphenyl ether, hexabromodiphenyl ether, heptabromodiphenyl ether and decabromodiphenyl ether are ≤ 10 mg/kg for substances, and Sum of tetra-, penta-, hexa-, hepta- and decaBDE ≤500 mg/kg for mixtures or articles, this restriction is subject to subject to review and assessment by the European by 16 July 2021.
(3) 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.

European Regulation POPs (EU) 2023/1608 amending to Regulation (EU) 2019/1021 Annex I-PFHxS, its salts and PFHxS related compounds

Test Method: Modified EN 17681-1:2022 and EN 17681-2:2022, analysis was performed by LC-MS or LC-MS/MS and GC-MS or GC-MS/MS.

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
PFHxS, its salts					
Perfluorohexanesulfonic acid (PFHxS), its salts^	355-46-4	0.025	mg/kg	0.010	ND
PFHxS-related compounds					
N-Methylperfluoro-1-hexanesulfonamide (N-Me-PFHxSA)	68259-15-4	1	mg/kg	0.010	ND
Perfluorohexane sulfonamide (PFHxSA)	41997-13-1	1	mg/kg	0.010	ND
N-[3-(dimethylamino)propyl] tridecafluorohexanesulphonamide (N-AP-FHxSA)	50598-28-2	1	mg/kg	0.010	ND
2-[methyl[(tridecafluorohexyl) sulphonyl]amino]ethyl acrylate)) (N-MeFHSEA)	67584-57-0	1	mg/kg	0.200	ND
2-Propenoic acid, 2-methyl-, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-	67584-61-6	1	mg/kg	0.200	ND

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
tridecafluorohexyl)sulfonyl]amino]ethyl ester					
2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester	67906-70-1	1	mg/kg	0.200	ND
1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-N-methyl-(MeFHxSE)	68555-75-9	1	mg/kg	0.010	ND
Glycine, N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl] (EtFHxSAA), its salts^	68957-32-4	1	mg/kg	0.010	ND
Sum of PFHxS-related compounds	-	1	mg/kg	-	ND
Conclusion					**Pass**

Notes:

(1) Commission Delegated Regulation (EU) 2023/1608 of May 30, 2023, amending to Regulation (EU) 2019/1021 Annex I as regard the listing of perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds, Official Journal of the EU, August 8, 2023.

Substance	Scope	Specific exemption on intermediate use or other specification
PFHxS and its salts	Substances, mixtures or articles	≤ 0.025 mg/kg
PFHxS-related compounds	Substances, mixtures or articles	≤ 1 mg/kg (individual or sum of all)
PFHxS, its salts and PFHxS-related compounds	Concentrated firefighting foam	≤ 0.1 mg/kg (to be reviewed within three years after entry into force of this amending regulation with a view to lower the limit)

(2) The tested perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds refer to the "Listed under the POPs Regulation" of ECHA, please find more information via below weblink: https://echa.europa.eu/list-of-substances-proposed-as-pops

(3) ^=Substances refer to its salts/derivative listed in below table

PFHxS, its salts & derivatives	
Perfluorohexanesulfonic acid (PFHxS)	355-46-4
Perfluorohexanesulfonate Na-salt (PFHxS-Na)	82382-12-5
Perfluorohexanesulfonate K-salt (PFHxS-K)	3871-99-6
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, lithium salt (1:1) (PFHxS-Li)	55120-77-9
Ammonium perfluorohexane-1-sulphonate (PFHxS-NH_4)	68259-08-5
Phosphonium, triphenyl(phenylmethyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-BTPP)	1000597-52-3
N,N,N-tributylbutan-1-aminium tridecafluorohexane-1-sulfonate(PFHxS-N(C_4H_9)$_4$)	108427-54-9

N,N,N-triethylethanaminium tridecafluorohexane-1-sulfonate(PFHxS-$N(C_2H_5)_4$)	108427-55-0
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. With pyrrolidine (1:1) (PFHxS-NC_4H_9)	1187817-57-7
Ethanaminium, N-[4-[[4-(diethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-ethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (Calculated in terms of PFHxS) (PFHxS-$(NC_{10}H_{14})_3C_5H_4$)	1310480-24-0
Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(ethylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-$(NC_8H_{10})_2C_{13}H_{12}$)	1310480-27-3
Methanaminium, N-[4-[[4-(dimethylamino)phenyl][4-(phenylamino)-1-naphthalenyl]methylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-$(NC_8H_{10})_2C_{17}H_{12}$)	1310480-28-4
Beta-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid ion(1-)(1:1) (PFHxS-$C_{42}H_{70}O_{35}$)	1329995-45-0
Gamma-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid ion(1-)(1:1)(PFHxS-$C_{48}H_{80}O_{40}$)	1329995-69-8
Sulfonium, triphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (TPS-PFHxS)	144116-10-9
Quinolinium, 1-(carboxymethyl)-4-[2-[4-[4-(2,2-diphenylethenyl)phenyl]-1,2,3,3a,4,8b-hexahydrocyclopent[b]indol-7-yl]ethenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)(PFHxS-$C_{44}H_{37}N_2O_2$)	1462414-59-0
Iodonium, diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-$I(C_6H_5)_2$)	153443-35-7
Methanaminium, N,N,N-trimethyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (PFHxS-TMA)	189274-31-5
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd.with 2-methyl-2-propanamine (1:1)(PFHxS-$NH_2(CH_3)_3$)	202189-84-2
Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)(PFHxS-$I(C_6H_4)_2(C_4H_9)_2$)	213740-81-9
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, gallium salt (9CI)(PFHxS-Ga)	341035-71-0
Sulfonium, bis(4-methylphenyl)phenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)(PFHxS-$S(C_7H_7)_2C_6H_5$)	341548-85-4
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, scandium(3+) salt (3:1)(PFHxS-Sc)	350836-93-0
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, neodymium(3+) salt (3:1)(PFHxS-Nd)	41184-65-0
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, yttrium(3+) salt (3:1)(PFHxS-Y)	41242-12-0
Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:2)(PFHxS-$S_3(C_6H_5)_4(C_6H_4)_2$)	421555-73-9
Iodonium, bis[4-(1,1-dimethylpropyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic(PFHxS-I $(C_6H_4)_2(C_5H_{11})$	421555-74-0

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663
t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

Perflurohexane sulphonyl fluoride(PFHxS-F)	423-50-7
Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)(PFHxS-S(C_6H_4)$_3$(C_4H_9)$_3$)	425670-70-8
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, zinc salt (PFHxS-Zn)	70136-72-0
Tridecafluorohexanesulphonic acid, compound with 2,2'-iminodiethanol (1:1)(PFHxS-NH(C_2H_5O)$_2$)	70225-16-0
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with N,N-diethylethanamine (1:1)(PFHxS-N(C_2H_5)$_3$)	72033-41-1
Iodonium, bis[(1,1-dimethylethyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (9CI) (PFHxS-I(C_6H_4)$_2$(C_4H_9)$_2$)	866621-50-3
Sulfonium, (4-methylphenyl)diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)(PFHxS-S(C_6H_5)$_2$$C_7H_7$)	910606-39-2
Sulfonium, [4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,67tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-S(C_6H_5)$_2$$8_{10}H_9O_2$)	911027-68-4
1-Hexanesulfonic acid, 9,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, cesium salt (1:1) (PFHxS-Cs) (PFHxS-Cs)	92011-17-1
Dibenzo[k,n][1,4,7,10,13]tetraoxathiacyclopentadecinium, 19-[4-(1,1-dimethylethyl)phenyl]-6,7,9,10,12,13-hexahydro-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-$SC_{28}H_{31}O_4$)	928049-42-7
Perfluorohexylsulfonyl chloride (PFHxS-Cl)	55591-23-6
Sulfonium, [4-[(2-methyl-1-oxo-2-propenyl)oxy]phenyl]diphenyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1), polymer with 2-ethyltricyclo[3.3.1.13,7]dec-2-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (PFHxS-Sulfonium, propenoate polymer)	911027-69-5
Perfluorohexane sulfonate (anion)	108427-53-8
Tetrabutylphosphonium perfluorohexane sulfonate (PFHxS-P (C_4H_9)$_4$))	2310194-12-6
EtFHxSAA, its salts	
Glycine, N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl] (EtFHxSAA)	68957-32-4
Potassium N-ethyl-n-[(tridecafluorohexyl)sulfonyl]glycinate (EtFHxSAA-K)	67584-53-6
Sodium N-ethyl-N-((tridecafluorohexyl)sulphonyl)glycinate (EtFHxSAA-Na)	68555-70-4

(4) The conclusion is only applicable to the substance list in the report.

European Regulation POPs (EU) 2020/784 amending to Regulation (EU) 2019/1021 Annex I - Perfluorooctanoic acid (PFOA) and its salts, PFOA-Related Substances, Perfluorooctane sulfonic acid (PFOS) and its derivatives

Test Method: With reference to modified EN 17681-1:2022 and EN 17681-2:2022, analysis was performed by LC-MS or LC-MS/MS and GC-MS or GC-MS/MS.

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
PFOS, its salts and related compounds					
Perfluorooctane sulfonic acid (PFOS), 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), its salts^	754-91-6	-	mg/kg	0.010	ND
Perfluorooctane sulfonamidoacetic Acid (FOSAA), its salts^	2806-24-8	-	mg/kg	0.010	ND
N-Methylperfluoro-1-octanesulfonamidoacetic Acid (N-MeFOSAA), its salts^	2355-31-9	-	mg/kg	0.010	ND
N-Ethylperfluorooctane sulfonamidoacetic Acid (N-EtFOSAA), its salts^	2991-50-6	-	mg/kg	0.010	ND
Sum of Perfluorooctane sulfonic acid (PFOS) and its derivatives	-	1000	mg/kg	-	ND
PFOA, its salts					
Perfluorooctanoic acid (PFOA), its salts^	335-67-1	0.025	mg/kg	0.010	ND
PFOA-related compounds					
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS), its salts^	39108-34-4	1	mg/kg	0.010	ND
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	1	mg/kg	0.200	ND
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	1	mg/kg	0.200	ND
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	1	mg/kg	0.100	ND
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	1	mg/kg	0.100	ND
Perfluoro-1-iodooctane (PFOI)	507-63-1	1	mg/kg	0.200	ND
2H,2H-Perfluorodecane Acid (8:2 FTCA), its salts^	27854-31-5	1	mg/kg	0.010	ND
1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7	1	mg/kg	0.100	ND
1-Iodo-1H,1H,2H,2H-perfluorodecane (8:2 FTI)	2043-53-0	1	mg/kg	0.100	ND
1H,1H,2H,2H-Perfluorodecyltriethoxysilane (8:2 FTSi(OC_2H_5)$_3$)	101947-16-4	1	mg/kg	0.100	ND

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

Test Item(s)	CAS No.	Limit	Unit(s)	MDL	A1
bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) hydrogen phosphate (8:2 diPAP) , its salts ^	678-41-1	1	mg/kg	0.010	ND
2H,2H,3H,3H-Perfluoroundecanoic Acid (8:3 FTCA), its salts^	34598-33-9	1	mg/kg	0.010	ND
1H,1H,2H-Heptadecafluoro-1-decene (PFDE)	21652-58-4	1	mg/kg	0.100	ND
3-Perfluoroheptyl propanoic acid (7:3 FTCA)	812-70-4	1	mg/kg	0.010	ND
1H,1H,2H,2H-Perfluorodecyltrichlorosilane/ 1H,1H,2H,2H-Perfluorodecyltrimethoxysilane	78560-44-8 /83048-65-1	1	mg/kg	0.100	ND
2H-Perfluoro-2-decenoic acid (8:2 FTUCA)	70887-84-2	1	mg/kg	0.010	ND
6:8 Perfluorophosphinic acid (6:8 PFPi)	610800-34-5	1	mg/kg	0.010	ND
8:8 Perfluorophosphinic acid (8:8 PFPi), its salts^	40143-79-1	1	mg/kg	0.010	ND
1H,1H,2H,2H-perfluorodecyl acetate (8:2 FTOAc)	37858-04-1	1	mg/kg	0.100	ND
8:2 Fluorotelomer phosphate monoester (8:2 monoPAP), its salts^	57678-03-2	1	mg/kg	0.100	ND
Sum of PFOA-related compounds	-	1	mg/kg	-	ND
Conclusion					**Pass**

Notes:
(1) ^=Substances refer to its salts/derivative listed in below table.

Substance Name	**CAS No.**
PFOS, its salts & derivatives	
Perfluorooctane sulfonic acid (PFOS)	1763-23-1
Potassium Perfluorooctanesulfonate (PFOS-K)	2795-39-3
Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5
Sodium perfluorooctanesulfonate (PFOS-Na)	4021-47-0
Ammonium perfluorooctanesulfonate (PFOS-NH_4)	29081-56-9
Perfluorooctane sulfonate diethanolamine salt (PFOS-$NH_2(C_2H_4OH)_2$)	70225-14-8
Perfluorooctanesulfonic acid,tetraethylammonium salt (PFOS-$N(C_2H_5)_4$)	56773-42-3
N-decyl-N,N-dimethyldecan-1-aminium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctane-1-sulfonate (PFOS-$N(C_{10}H_{21})_2(CH_3)_2$)	251099-16-8
TetrabutylAmmonium perfluorooctanesulfonate (PFOS-$N(C_4H_9)_4$)	111873-33-7
Perfluorooctane Sulfonyl fluoride (PFOS-F)	307-35-7
Magnesium bis(heptadecafluorooctanesulphonate) (PFOS-Mg)	91036-71-4
Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctanesulfonate	71463-74-6
Perfluorooctanesulfonate	45298-90-6
Triethylammonium perfluorooctane sulfonate (PFOS-$N(C_2H_5)_3$)	54439-46-2

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86–20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 sgs.china@sgs.com

Tetramethylammonium perfluorooctane sulfonate (PFOS-N(CH_3)$_4$)	56773-44-5
N,N,N-Tripropylpentan-1-aminium heptadecafluorooctane-1-sulfonate (PFOS-N(C_3H_7)$_3$(C_5H_{11}))	56773-56-9
N,N-Dibutyl-N-methylbutan-1-aminium heptadecafluorooctane-1-sulfonate (PFOS-N(C_4H_9)$_3$(CH_3))	124472-68-0
Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, salt with perfluoro-1-octanesulfonic acid (1:1)	213740-80-8
Diphenyl(2,4,6-trimethylphenyl)sulfonium perfluoro-1-octanesulfonate	258341-99-0
1-Hexadecylpyridinium perfluoro-1-octanesulfonate	334529-63-4
N,N,N-Triethyldecan-1-aminium heptadecafluorooctane-1-sulfonate	773895-92-4
Tetrabutylphosphonium perfluorooctane sulfonate (PFOS-P(C_4H_9)$_4$))	2185049-59-4
Perfluorooctanesulfonic acid diethylamine salt (PFOS-$C_4H_{11}N$)	2205029-08-7
heptyldimethyl{2-[(2-methylprop-2-enoyl)oxy]ethyl}azanium heptadecafluorooctane-1-sulfonate (PFOS-$C_{15}H_{30}NO_2$)	1203998-97-3
Perfluorooctane sulfonic anhydride (PFOSAN)	423-92-7
FOSAA, its salts	
Perfluorooctane sulfonamidoacetic Acid (FOSAA)	2806-24-8
N-[(Perfluorooctyl)sulfonyl]glycinate (FOSAA(anion))	909405-47-6
N-[(Perfluorooctyl)sulfonyl]glycine potassium salt (1:1) (FOSAA-K)	75260-69-4
N-[(Perfluorooctyl)sulfonyl]glycine sodium salt (1:1) (FOSAA-Na)	115716-87-5
N-MeFOSAA, its salts	
N-Methylperfluoro-1-octanesulfonamidoacetic Acid (N-MeFOSAA)	2355-31-9
2-(N-Methylperfluorooctanesulfonamido)acetate (N-Me-FOSAA(anion))	909405-48-7
Potassium N-((heptadecafluorooctyl)sulphonyl)-N-methylglycinate (N-Me-FOSAA-K)	70281-93-5
N-EtFOSAA, its salts	
N-Ethylperfluorooctane sulfonamidoacetic Acid (N-EtFOSAA)	2991-50-6
Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt (N-Et-FOSAA-K)	2991-51-7
2-(N-Ethyl-perfluorooctanesulfonamido)acetate (N-Et-FOSAA(anion))	909405-49-8
Ammonium 2-(N-ethylperfluorooctanesulfonamido)acetate (N-Et-FOSAA-NH_4)	2991-52-8
Sodium 2-(N-ethylperfluorooctanesulfonamido)acetate (N-Et-FOSAA-Na)	3871-50-9
PFOSA, its salts	
Perfluorooctane Sulfonamide (PFOSA)	754-91-6
Perfluorooctanesulfonamide lithium salt (1:1) (PFOSA-Li)	76752-79-9
Perfluorooctanesulfonamide Sodium salt (1:1) (PFOSA-Na)	76752-78-8
Perfluorooctanesulfonamide Potassium salt (1:1) (PFOSA-K)	76752-70-0
Perfluorooctanesulfonamide Ammonium salt (1:1) (PFOSA-NH_4)	76752-72-2
Heptadecafluorooctane-1-sulphonamide, compound with triethylamine (1:1) (PFOSA-$C_6H_{15}N$)	76752-82-4
PFOA, its salts & derivatives	
Perfluorooctanoic acid (PFOA)	335-67-1
Sodium perfluorooctanoate (PFOA-Na)	335-95-5

Potassium perfluorooctanoate (PFOA-K)	2395-00-8
Silver perfluorooctanote (PFOA-Ag)	335-93-3
Perfluorooctanoyl fluoride (PFOA-F)	335-66-0
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
Lithium perfluorooctanoate (PFOA-Li)	17125-58-5
Cobalt perfluorooctanoate (PFOA-Co)	35965-01-6
Cesium perfluorooctanoate (PFOA-Cs)	17125-60-9
Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) (PFOA-Cr(3+))	68141-02-6
Pentadecafluorooctanoic acid--piperazine (2/1) (PFOA-NH($C_4H_{10}N$))	423-52-9
Pentadecafluorooctanoate (anion)	45285-51-6
Perfluorooctanoic Anhydride	33496-48-9
N,N,N-Triethylethanaminium perfluorooctanoate	98241-25-9
Perfluorooctanoate N,N,N-Trimethylmethanaminium	32609-65-7
Tetrapropylammonium perfluorooctanoate	277749-00-5
Potassium pentadecafluorooctanoate--water (1/1/2) (PFOA-$K(H_2O)_2$)	98065-31-7
Perfluorooctanoic acid compd. with ethanamine (1:1) (PFOA-C_2H_7N)	1376936-03-6
Pentadecafluorooctanoic acid--pyridine (1/1) (PFOA-C_5H_5N)	95658-47-2
pentadecafluorooctanoic acid- 1-phenylpiperazine(1:1) (PFOA-$C_{10}H_{14}N_2$)	1514-68-7
N,N,N-Trimethyloctan-1-aminium pentadecafluorooctanoate (PFOA-$C_{11}H_{26}N$)	927835-01-6
8:2 FTS, its salts	
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4
Potassium 1H,1H,2H,2H-Perfluorodencane sulfonate (8:2 FTS-K)	438237-73-1
Ammonium 1H,1H,2H,2H-Perfluorodencane sulfonate (8:2 FTS-NH_4)	149724-40-3
Sodium 1H,1H,2H,2H-Perfluorodencane sulfonate (8:2 FTS-Na)	27619-96-1
2-(Perfluorooctyl)ethane-1-sulfonate (8:2 FTS(anion))	481071-78-7
8:2 FTCA, its salts	
2H,2H-Perfluorodecane Acid (8:2 FTCA)	27854-31-5
Tetrabutylphosphonium 2H,2H-Perfluorodecanoate (8:2 FTCA-$P(C_4H_9)_4$)	882489-14-7
8:2diPAP, its salts	
Bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl) hydrogen phosphate (8:2diPAP)	678-41-1
Sodium bis(1H,1H,2H,2H-perfluorodecyl)phosphate (8:2diPAP-Na)	114519-85-6
Bis(2-hydroxyethyl)ammonium bis((perfluorooctyl)ethyl) hydrogen phosphate	57677-97-1
Bis[2-(perfluorooctyl)ethyl] phosphate ammonium salt (8:2 diPAP-NH_4)	93776-20-6
8:2 Fluorotelomer phosphate diester ion (1-)	1411713-91-1
8:3 FTCA, its salts	
2H,2H,3H,3H-Perfluoroundecanoic acid (8:3 FTCA)	34598-33-9
Potassium 2H,2H,3H,3H-Perfluoroundecanoate (8:3 FTCA-K)	83310-58-1
2H,2H,3H,3H-Perfluoroundecanoate (8:3 FTCA-Li)	67304-23-8
8:8 PFPi, its salts	
8:8 Perfluorophosphinic acid (8:8 PFPi)	40143-79-1

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86–20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 sgs.china@sgs.com

Bis(heptadecafluorooctyl)phosphinic Acid Sodium Salt (8:8 PFPi-Na)	500776-69-2
Bis(perfluorooctyl) phosphinic acid erbium(3+) salt (8:8 PFPi-Er)	500776-70-5
Bis(perfluorooctyl) phosphinic acid ytterbium(3+) salt (8:8 PFPi-Yb)	500776-71-6
8:2 monoPAP, its salts	
8:2 Fluorotelomer phosphate monoester (8:2 monoPAP)	57678-03-2
8:2 Fluorotelomer diammonium phosphate	93857-44-4
Disodium 1H,1H,2H,2H-perfluorodecylphosphate	438237-75-3
Ammonium bis[2-(perfluorohexyl)ethyl] phosphate	1764-95-0
3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctanol phosphate ammonium salt	92401-44-0
Sodium 1H,1H,2H,2H-perfluorooctylphosphate	144965-22-0
Monopotassium monoperfluorohexyl ethylphosphate	150033-28-6
Ammonium 2-(perfluorohexyl)ethyl hydrogen phosphate	2353-52-8

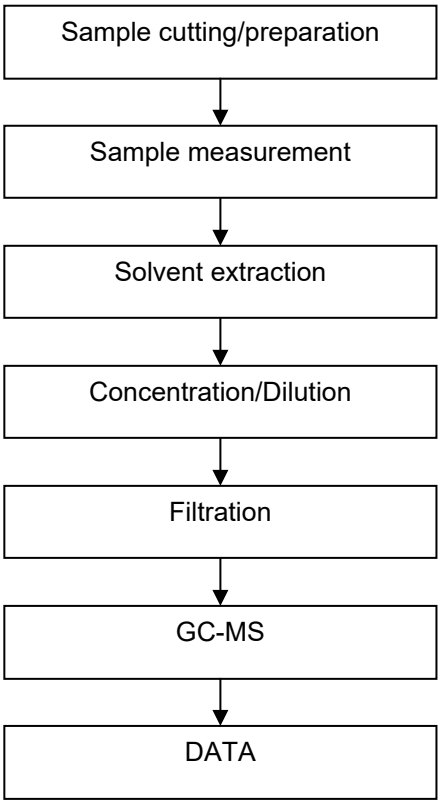
(2) The conclusion is only applicable to the substance list in the report.

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.

No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86–20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 sgs.china@sgs.com

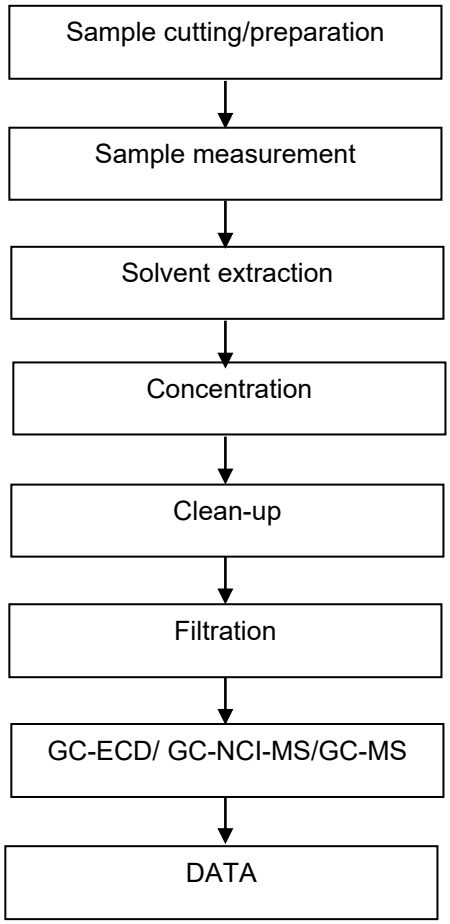
ATTACHMENTS

HBCDD Testing Flow Chart



SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Technical Service Chemical Laboratory.
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

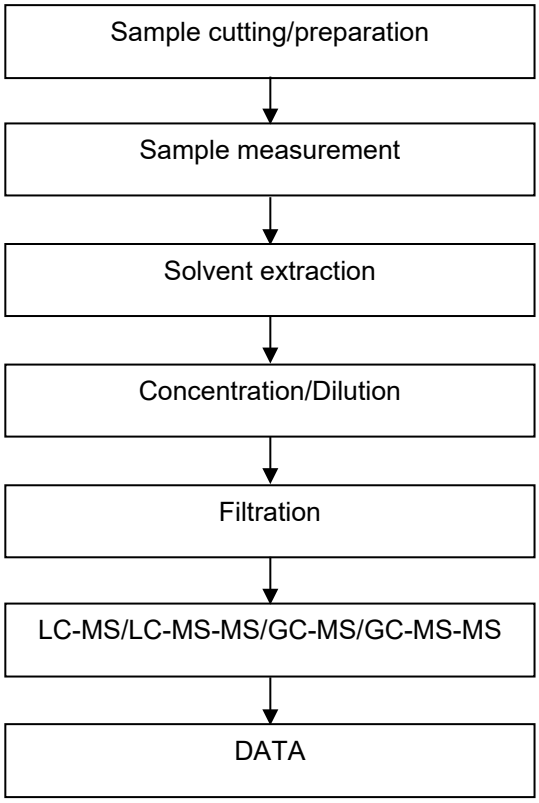
Chlorinated Paraffin Testing Flow Chart



SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Testing Center
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663
t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

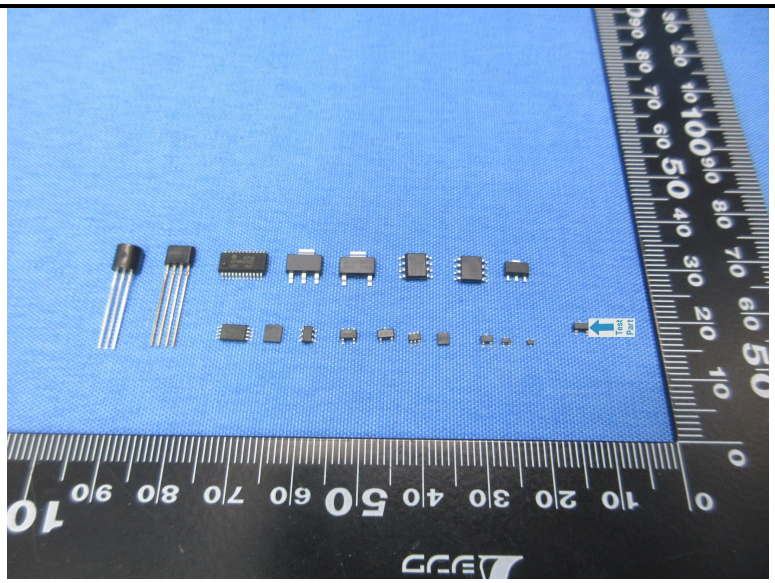
ATTACHMENTS

PFASs/ PFOS/PFOA Testing Flow Chart



SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Technical Service Chemical Laboratory.
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 sgs.china@sgs.com

Sample Photo:



CAN25-0150597-0001.C001

SGS authenticate the photo on original report only

*** End of Report ***

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch Technical Service Chemical Laboratory.
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663 t (86–20) 82155555 www.sgsgroup.com.cn
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 sgs.china@sgs.com