



TEST REPORT

Applicant: China And South Korea's Daewoo (Shenzhen) Industrial Development Co., Ltd.
Unit 201, Entire Floor Building B 63 Jixiang 1st Road Pingxi Community Pingdi
Address: Subdistrict Longgang District Shenzhen City Guangdong Province China Unit 201,
Building B, 63 Jixiang 1st Road, Pingxi Community, Pingdi Subdistrict, Longgang
District, Shenzhen
Manufacturer: China And South Korea's Daewoo (Shenzhen) Industrial Development Co., Ltd.
Unit 201, Entire Floor Building B 63 Jixiang 1st Road Pingxi Community Pingdi
Address: Subdistrict Longgang District Shenzhen City Guangdong Province China Unit 201,
Building B, 63 Jixiang 1st Road, Pingxi Community, Pingdi Subdistrict, Longgang
District, Shenzhen

The following sample(s) and sample information by the applicant:

Product Name: Hydrogen Inhalation Machine
Trade Mark: /
Model Number: W11, W12, W13, W15, W16, W17, W18, W19, W20, W21
Date of Receipt: Oct. 20, 2025
Test Date: Oct. 20, 2025 ~ Oct. 23, 2025
Test Requested: Selected test(s) in the selected parts as requested by client.
Test Method: Please refer to next page(s).
Test Results: Please refer to next page(s).

Prepared (Engineer): Shely Mo

Approved (Manager): Xiaoshan Ni



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.

**Version**

Version No.	Date	Description
00	Oct. 31, 2025	Original

Summary

- 1.Regulation(EC) No 1907/2006 (REACH) and its amendment Regulation (EU) 2021/1297 Annex XVII, Entry 68 - (C9-C14 PFCAs) their salts and C9-C14 PFCA-related substances
- 2.Regulation(EC)No 1907/2006 (REACH) and its amendment Regulation (EU) 2024/2462 Annex XVII, Entry 79 - Undecafluorohexanoic acid (PFHxA), its salts and PFHxA-related substances
- 3.Persistent organic pollutants (POP) screening against
- Selected Substances in Annex I of European Regulation (EU) 2025/843 ; Regulation (EU) 2025/718; Regulation (EU) 2021/277; Regulation POPs (EU) 2019/1021
- 4.Regulation(EC) No 1907/2006 (REACH) and its amendment & Packaging and Packaging Waste Regulation (EU) 2025/40-Perfluoroalkyl and polyfluoroalkyl substances (PFAS) Content
- 5.Determination of fluorine-based compounds in food contact materials:Total fluorine

Conclusion

PASS

PASS

PASS

PASS

PASS

Test Part Description:

Sample No.	Sample Description
01	White plastic
02	Transparent plastic
03	Cyan plastic
04	Cyan silicone
05	White silicone
06	Translucent silicone
07	Silver metal

Remarks:

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

Test Method: Refer to EPA 533, EN 17681:2025 and EN 14582 : 2007 , analysis was performed by LC-MS , LC-MS/MS , GC MS and IC.

**Test Result:****1.Regulation(EC) No 1907/2006 (REACH) and its amendment Regulation (EU) 2021/1297 Annex XVII, Entry 68 - (C9-C14 PFCAs) their salts and C9-C14 PFCA-related substances**

Test Item	CAS No.	Result	MDL	Unit	Limit
		01+02+03+ 04+05+06+ 07			
Henicosafluoroundecanoic acid (PFUnDA)	2058-94-8	ND	0.1	mg/kg	-
Tricosafluorododecanoic acid (PFDoDA)	307-55-1	ND	0.1	mg/kg	-
Pentacosafluorotridecanoic acid (PFTrDA)	72629-94-8	ND	0.1	mg/kg	-
Perfluorononan-1-oic acid (PFNA)	375-95-1	ND	0.1	mg/kg	-
Heptacosafluorotetradecanoic acid (PFTDA)	376-06-7	ND	0.1	mg/kg	-
Nonadecafluorodecanoic acid (PFDA)	335-76-2	ND	0.1	mg/kg	-
Sodium 4,8-dioxa-3H-perfluorononanoate	2250081-67-3	ND	0.1	mg/kg	-
1H,1H-Perfluorooctylamine	307-29-9	ND	0.1	mg/kg	-
CPRNWMZKNOIIML-UHFFFAOYSA-N	40143-78-0	ND	0.1	mg/kg	-
Bis[2-(perfluorohexyl)ethyl] Phosphate	57677-95-9	ND	0.1	mg/kg	-
3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hexadecafluorodec-2-enoic acid	70887-84-2	ND	0.1	mg/kg	-
11-chloroeicosafluoro-3-oxaundecane-1-sulfonicacid	763051-92-9	ND	0.1	mg/kg	-
Sum of C9-C14 PFCAs, their salts		ND	-	mg/kg	0.26

2.Regulation(EC)No 1907/2006 (REACH) and its amendment Regulation (EU) 2024/2462 Annex XVII, Entry 79 - Undecafluorohexanoic acid (PFHxA), its salts and PFHxA-related substances

Test Item	CAS No.	Result	MDL	Unit	Limit
		01+02+03+ 04+05+06+ 07			
Perfluorohexane Acid (PFHxA)	307-24-4	ND	0.1	mg/kg	-
Ammonium perfluorohexanoate (APFHx)	21615-47-4	ND	0.1	mg/kg	-
Sodium perfluorohexanoate (PFHxA-Na)	2923-26-4	ND	0.1	mg/kg	-
Potassium perfluorohexanoate(PFHxA-K)	3109-94-2	ND	0.1	mg/kg	-
Silver perfluorohexanoate (PFHXA-Ag)	336-02-7	ND	0.1	mg/kg	-



Lithium perfluorohexanoate (PFHxA-Li)	90430-61-8	ND	0.1	mg/kg	-
Sum of PFHxA, their salts		ND	-	mg/kg	0.26

3.Persistent organic pollutants (POP) screening against

- Selected Substances in Annex I of European Regulation (EU) 2025/843 ; Regulation (EU) 2025/718; Regulation (EU) 2021/277; Regulation POPs (EU) 2019/1021

Test Item	CAS No.	Result	MDL	Unit	Limit
		01+02+03+ 04+05+06+ 07			
1H,1H,2H,2H-Perfluorodecan esulfonic acid (8:2 FTS)	39108-34-4	ND	0.01	mg/kg	-
Methyl perfluorooctanoate (Me-PFOA)	376-27-2	ND	0.01	mg/kg	-
Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	ND	0.01	mg/kg	-
1H,1H,2H,2H-Perfluoro-1-dec anol (8:2 FTOH)	678-39-7	ND	0.01	mg/kg	-
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	ND	0.01	mg/kg	-
1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA)	1996-88-9	ND	0.01	mg/kg	-
Perfluoro-1-iodooctane (PFOI)	507-63-1	ND	0.01	mg/kg	-
Sum of PFOA, their salts		ND	-	mg/kg	0.025
Perfluorooctane sulfonates (PFOS)	1763-23-1	ND	0.01	mg/kg	-
N-ethylperfluoro-1-octanesulf onamide (EtFOSA)	4151-50-2	ND	0.01	mg/kg	-
N-methylperfluoro-1-octanesu lfonamide (MeFOSA)	31506-32-8	ND	0.01	mg/kg	-
2-(N-ethylperfluoro-1-octanesulf onamido) -ethanol(EtFOSE) 1	1691-99-2	ND	0.01	mg/kg	-
2-(N-methylperfluoro-1-octanes ulfonamido) -ethanol(MeFOSE)	24448-09-7	ND	0.01	mg/kg	-
Perfluorooctane Sulfonamide (PFOSA)	754-91-6	ND	0.01	mg/kg	-
Perfluorodecyl phosphate	57678-03-2	ND	0.01	mg/kg	-
Sum of PFOS, their salts		ND	-	mg/kg	0.025
Perfluorohexane-1-sulphonic acid	355-46-4	ND	0.01	mg/kg	-
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[3.3.1.1 ^{3,7}]dec-2-yl 2-methyl-2-propenoate, 3-hydroxytricyclo	911027-69-5	ND	0.01	mg/kg	-



[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate					
Ammonium perfluorohexane-1-sulphonate	68259-08-5	ND	0.01	mg/kg	-
Tridecafluorohexanesulphonic acid, compound with 2,2'-iminodiethanol (1:1)	70225-16-0	ND	0.01	mg/kg	-
1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, zinc salt	70136-722-0	ND	0.01	mg/kg	-
Potassium perfluorohexane-1-sulphonate	3871-99-6	ND	0.01	mg/kg	-
Sum of PFHxS, their salts		ND	-	mg/kg	0.025

4.Regulation(EC) No 1907/2006 (REACH) and its amendment & Packaging and Packaging Waste Regulation (EU) 2025/40-Perfluoroalkyl and polyfluoroalkyl substances (PFAS) Content

Test Result:

Test Item(s)	Unit	MDL	Result
			01+02+03+04+05+06+07
per- and polyfluoroalkyl substances (PFAS)	mg/kg	0.01	ND

PFAS List of substances:

No.	Substance Name	CAS No.	MDL
1	Perfluorooctane Sulfonates (PFOS)	1763-23-1	0.01
2	Perfluorooctanesulfonic acid, potassium salt (PFOS-K)	2795-39-3	--
3	Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5	--
4	Sodium perfluorooctane sulfonate (PFOS-Na)	4021-47-0	--
5	Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH ₄)	29081-56-9	--
6	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) ₂)	70225-14-8	--
7	Perfluorooctanesulfonic acid, ammonium salt (PFOS-NH ₄)	56773-42-3	--
8	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(OH) ₂)	251099-16-8	--
9	Tetrabutylammonium perfluorooctanesulfonate (PFOS-NH(C ₁₆ H ₃₆))	111873-33-7	--
10	Perfluoro-1-octanesulfonyl fluoride (PFOSF)	307-35-7	--
11	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8 - heptadecafluoro-, magnesium salt (2:1) (PFOS-Mg)*	91036-71-4	--
12	Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,81-heptadecafluorooctanesulfonate	71463-74-6	--
13	N-Ethylperfluoro-1-octanesulfonamide (N-Et-FOSA)	4151-50-2	0.01



No.	Substance Name	CAS No.	MDL
14	N-Methylperfluoro-1-octanesulfonamide (N-Me-FOSA)	31506-32-8	0.01
15	2-(N-Ethylperfluoro-1-octanesulfonamido)- ethanol (N-Et-FOSE)	1691-99-2	0.01
16	2-(N-Methylperfluoro-1-octanesulfonamido)- ethanol (N-Me-FOSE)	24448-09-7	0.01
17	Perfluorooctanoic acid (PFOA)	754-91-6	0.01
18	Perfluorooctanoic acid (PFOA)	335-67-1	0.01
19	Sodium perfluorooctanoate (PFOA-Na)	335-95-5	--
20	Postassium Perfluorooctanoate (PFOA-K)	2395-00-8	--
21	Silver perfluorooctanoate (PFOA-Ag)	335-93-3	--
22	Perfluorooctanoyl fluoride (PFOA-F)	335-66-0	--
23	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	--
24	Lithium perfluorooctanoate (PFOA-Li)	17125-58-5	--
25	Cobalt perfluorooctanoate (PFOA -Co)	35965-01-6	--
26	Cesium perfluorooctanoate (PFOA-Cs)	17125-60-9	--
27	Chromium(III) perfluorooctanoate (PFOA -Cr)	68141-02-6	--
28	Pentadecafluorooctanoic acid-piperazine (2/1) NH(C 4H10 N))	423-52-9	--
29	1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2 FTS)	39108-34-4	0.01
30	Potassium 2-(perfluorooctyl)ethane-1-sulfonate (8:2 FTS-K)*	438237-73-1	--
31	8:2 Fluorotelomer sulfonate ammonium salt (8:2 FTS-NH4)*	149724-40-3	--
32	1H,1H,2H,2H-Perfluorodecanesulfonic Acid Sodium (8:2 FTS-Na)*	27619-96-1	--
33	Methyl perfluorooctanoate (Me-PFOA)	376-27-2	0.1
34	Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	0.1
35	1,1,2,2-Tetrahydroperfluorodecyl acrylate (8:2 FTAC)	27905-45-9	0.1
36	2-Propenoic acid,2-methyl-,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10 - heptadecafluorodecyl ester (8:2 FTMA)	1996-88-9	0.1
37	Perfluorooctyl iodide (PFOI)	507-63-1	0.1
38	2H,2H-Perfluorodecanoate (H2PFDA)	27854-31-5	0.01
39	Tetrabutylphosphonium 2H,2H-Perfluorodecanoate (H2PFDA-P(C4H9)4)	882489-14-7	--
40	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7	0.1
41	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo- (8:2 FTI)	2043-53-0	0.1



No.	Substance Name	CAS No.	MDL
42	1H,1H,2H,2H-Perfluorodecyltriethoxysilane (PFSI)	101947-16-4	0.1
43	8:2 Fluorotelomer phosphate diester (8:2diPAP)	678-41-1	0.01
44	Sodium bis(1H,1H,2H,2H-perfluorodecyl)phosphate (8:2diPAP-Na)	114519-85-6	--
45	2H,2H,3H,3H-Perfluoroundecanoic acid (H4PFUnA)	34598-33-9	0.01
46	Potassium 3-(perfluorooctyl)propanoate (H4PFUnA-K)*	83310-58-1	--
47	1-Decene,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro - (PFOE)	21652-58-4	0.1
48	3-Perfluoroheptylpropanoic acid (7:3 FTCA)	812-70-4	0.01
49	Perfluorononanoic acid (PFNA)	375-95-1	0.01
50	Sodium heptadecafluorononanoate (PFNA-Na)	21049-39-8	--
51	Perfluorononanoate ammonium salt (PFNA-NH ₄)	4149-60-4	--
52	Potassium perfluorononanoate (PFNA-K)	21049-38-7	--
53	Lithium heptadecafluorononanoate (PFNA-Li)	60871-92-3	--
54	Silver perfluorononanoate (PFNA-Ag)	7358-16-9	--
55	Methanaminium perfluorononanoate (PFNA-NH ₃ (CH ₃))	77032-23-6	--
56	Perfluorodecanoic acid (PFDA)	335-76-2	0.01
57	Sodium nonadecafluorodecanoate (PFDA-Na)	3830-45-3	--
58	Perfluorodecanoate ammonium salt (APFDA)	3108-42-7	--
59	Potassium perfluorodecanoate (PFDA-K)	51604-85-4	--
60	Silver perfluorodecanoate (PFDA-Ag)*	5784-82-7	--
61	Lithium perfluorodecanoate (PFDA-Li)*	84743-32-8	--
62	Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.01
63	Sodium perfluoroundecanoate (PFUnDA-Na)	60871-96-7	--
64	Ammonium perfluoroundecanoate (PFUnDA-NH ₄)	4234-23-5	--
65	Potassium perfluoroundecanoate (PFUnDA-K)	30377-53-8	--
66	Calcium perfluoroundecanoate (PFUnDA-Ca)	97163-17-2	--
67	Perfluorododecanoic acid (PFDoDA)	307-55-1	0.01
68	Ammonium tricosafuorododecanoat (PFDoDA -NH ₄)	3793-74-6	--
69	Sodium perfluorotridecanoate (PFTrDA-Na)	60872-01-7	--



No.	Substance Name	CAS No.	MDL
70	Perfluorotridecanoic acid (PFTTrDA)	72629-94-8	0.01
71	Ammonium perfluorotridecanoate (PFTTrDA-NH ₄)*	4288-72-6	--
72	Perfluorotetradecanoic acid (PFTTeDA)	376-06-7	0.01
73	Perfluoro-3,7-dimethyloctanoic acid (PF-3,7-DMOA)	172155-07-6	0.01
74	Henicosafuorodecanesulphonic acid (PFDS)	335-77-3	0.01
75	Perfluorodecanesulfonate NA-salt (PFDS-Na)	2806-15-7	--
76	Perfluorodecanesulfonate K-salt (PFDS-K)*	2806-16-8	--
77	Ammonium henicosafuorodecanesulphonate (PFDS-NH ₄)	67906-42-7	--
78	1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH)	865-86-1	0.1
79	1H,1H,2H,2H-Tetrahydroperfluorododecyl acrylate (10:2 FTA)	17741-60-5	0.1
80	2-(Perfluorodecyl)ethyl methacrylate (10:2 FTMA)	2144-54-9	0.1
81	1H,1H,2H,2H-perfluorotetradecan-1-ol (12:2 FTOH)	39239-77-5	0.1
82	1H,1H,2H,2H-Perfluorododecanesulphonicacid (10:2 FTS)	120226-60-0	0.01
83	1H,1H,2H,2H-perfluorododecyl iodide (10:2 FTI)	2043-54-1	0.1
84	1H,1H,2H,2H-perfluorotetradecyl iodide (12:2 FTI)	30046-31-2	0.1
85	Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.01
86	Sodium Perfluoro-1-nonanesulfonate (PFNS -Na)	98789-57-2	--
87	Ammonium perfluorononanesulfonate (PFNS-NH ₄)	17202-41-4	--
88	Perfluorononanesulfonate potassium (PFNS -K)	29359-39-5	--
89	Perfluoroundecane sulfonic acid (PFUnS)	749786-16-1	0.01
90	Perfluoroundecanesulfonate (PFUnS(anion))	441296-91-9	--
91	Perfluorododecane sulfonic acid (PFDoDs)	79780-39-5	0.01
92	Sodium perfluoro -1-dodecanesulfonate (PFDoDS -Na)	1260224-54-1	--
93	Potassium 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuorododecane-1-sulphonate(PFDoDS -K)	85187-17-3	--
94	Perfluorododecanesulfonate (PFDoDS(anion))	343629-43-6	--
95	Perfluorotridecanesulfonic acid (PFTTrDS)	791563-89-8	0.01
96	Sodium perfluorotridecanesulfonate (PFTTrDS -Na)	174675-49-1	--
97	Bis[2-(perfluorodecyl)ethyl] Phosphate (10:2diPAP)	1895-26-7	0.1



No.	Substance Name	CAS No.	MDL
98	Perfluorodecyl iodide (PFDI)	423-62-1	0.1
99	Perfluorododecyl iodide (PFDol)	307-60-8	0.1
100	Perfluorohexanesulfonic acid (PFHxS)	355-46-4	0.01
101	1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro-, sodium salt (PFHxS-Na)*	82382-12-5	--
102	Potassium perfluorohexane-1-sulphonate (PFHxS-K)	3871-99-6	--
103	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	--
104	1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro -,ammonium salt (1:1) (PFHxS-NH4)*	68259-08-5	--
105	Phosphonium, triphenyl(phenylmethyl), -,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-P(C 6H5)3C7H7)	1000597-52-3	--
106	1-Butanaminium,N,N,N-tributyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro -1-hexanesulfonic acid (PFHxS-N(C 4H9)4)	108427-54-9	--
107	Ethanaminium,N,N,N-triethyl-,salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1)(PFHxS-N(C2H5)4)*	108427-55-0	--
108	1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6tridecafluoro. comnd with nvrrolidine (1:1)(PFHxS-NC4H9)	1187817-57-7	--
109	Ethanaminium,N-[4-[[4-(diethylamino)phenyl][4(ethylamino)-1-naphthalenyl]methylene]-2,5cyclohexadien-1-ylidene]-N-ethyl-,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate(1:1) (PFHxS- (NC10H14)3C5H4)	1310480-24-0	--
110	Methanaminium,N-[4-[[4-(dimethylamino)phenyl][4(ethylamino)-1-naphthalenyl]methylene]-2,5cyclohexadien-1-ylidene]-N-methyl-,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS- (NC8H10)2C13H12)	1310480-27-3	--
111	Methanaminium,N-[4-[[4-(dimethylamino)phenyl][4(phenylamino)-1-naphthalenyl]methylene]-2,5cyclohexadien-1-ylidene]-N-methyl-,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS- (NC8H10)2C17H12)	1310480-28-4	--
112	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- C42H70O35)	1329995-45-0	--
113	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-C48H80O40)	1329995-69-8	--
114	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	--
115	Quinolinium,1-(carboxymethyl)-4-[2-[4-[4-(2,2diphenylethenyl)phenyl]-1,2,3,3a,4,8bhexahydrocyclopent[b]indol-7-yl]ethenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS- C44H37N2O2)	1462414-59-0	--
116	Iodonium,diphenyl-,1,1,2,2,3,3,4,4,5,5,6,6,6tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-I(C6H5)2)	153443-35-7	--
117	Methanaminnum NNN-trimethyl-salt with 11 223 34,5,5,6,6,6-	189274-31-5	--



No.	Substance Name	CAS No.	MDL
	tridecafluoro-1-hexanesulfonic acid (1:1) (PFHxS-TMA)		
118	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	--
119	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 ₆ H ₄) ₂ (C ₄ H ₉) ₂)	213740-81-9	--
120	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	--
121	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 ₇ H ₇) ₂ C ₆ H ₅)	341548-85-4	--
122	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	--
123	1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro -, neodymium(3+) salt (3:1) PFHxS,(PFHxS-Nd)	41184-65-0	--
124	1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6 Hexanesulfonic acid-tridecafluoro-, yttrium(3+) salt (3:1) (PFHxS-Y)	41242-12-0	--
125	Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1hexanesulfonic acid (1:2) (PFHxS-S ₃ (C ₆ H ₅) ₄ (C ₆ H ₄) ₂)	421555-73-9	--
126	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 ₆ H ₄) ₂ (C ₅ H ₁₁) ₂)	421555-74-0	--
127	1-Hexanesulfonyl fluoride,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro- (PFHxS-F)	423-50-7	--
128	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 (PFHxS-S(C ₆ H ₄) ₃ (C ₄ H ₉) ₃)*	425670-70-8	--
129	1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluoro -, zinc salt (PFHxS-Zn) Zn)	70136-72-0	--
130	Tridecafluorohexanesulphonic acid, compound with 2,2'- iminodiethanol (1:1) PFHxS-NH(C NH(C 2H ₅ O) 2)*	70225-16-0	--
131	1-Hexanesulfonic acid,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro -compd. with N,N -diethylethanaminediethylethanamine (1:1) PFHxS-N(C 2H ₅) ₃)	72033-41-1	--
132	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	--
133	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 ₇ H ₇))*	910606-39-2	--
134	Sulfonium,[4-[(2-Imethyl-1-oxo-2-propen-1-yl)oxy]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 ₁₀ H ₉ O ₂)	911027-68-4	--
135	Cesium Perfluorohexanesulfonate (1:1)(PFHxS-Cs)	92011-17-1	--
136	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	--
137	1,1,2,2,3,3,4,4,5,5,6,6,6-Tridecafluorohexane-1-sulphonyl chloride	55591-23-6	--



No.	Substance Name	CAS No.	MDL
	(PFHxS-Cl)		
138	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[3.3.1.1 ^{3,7}]dec-2-yl-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1 ^{3,7}]dec-1-yl 2-methyl-2-propenoate	911027-69-5	--
139	Perfluorohexylsulfonate (PFHxS(anion))	108427-53-8	--
140	N-methylperfluorohexanesulfonamide (MeFHxSA)	68259-15-4	0.01
141	1-Hexane-sulfonamide,1,1,2,2,3,3,4,4,5,5,6,6,6 -tridecafluoro (FHxSA)	41997-13-1	0.01
142	Perfluorohexanoic acid (PFHxA)	307-24-4	0.01
143	Ammonium perfluorohexanoate (PFHxA-NH ₄)	21615-47-4	--
144	Sodium undecafluorohexanoate (PFHxA-Na)	2923-26-4	--
145	Hexanoic acid, undecafluoro-, potassium salt (PFHxA-K)	3109-94-2	--
146	Perfluorohexanoyl fluoride (PFHxA-F)	355-38-4	--
147	Silver perfluorohexanoate (PFHxA-Ag)	336-02-7	--
148	Lithium perfluorohexanoate (PFHxA-Li)	90430-61-8	--
149	Perfluorohexanoic anhydride (PFHxAA)	308-13-4	--
150	Perfluoro-butanoic acid (PFBA)	375-22-4	0.01
151	Ammonium perfluorobutanoate (PFBA -NH ₄)	10495-86-0	--
152	Sodium heptafluorobutyrate (PFBA-Na)	2218-54-4	--
153	Potassium heptafluorobutanoate (PFBA -K)	2966-54-3	--
154	Silver perfluorobutanoate (PFBA -Ag)	3794-64-7	--
155	Lithium perfluorobutanoate (PFBA-Li)	4146-76-3	--
156	Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.01
157	Perfluorobutanesulfonate K-salt (PFBS-K)	29420-49-3	--
158	Perfluorobutane sulfonic acid hydrate (PFBS-H ₂ O)	59933-66-3	--
159	Lithium perfluorobutanesulfonate (PFBS-Li)	131651-65-5	--
160	Triphenylsulfonium nonaflate (PFBS-S(C ₆ H ₅) ₃)	144317-44-2	--
161	Tetrabutylphosphorus perfluorobutylsulfonate (PFBS-P(C ₄ H ₉) ₄)	220689-12-3	--
162	N,N,N-Triethyl-1-[(1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonyl)oxy]ethan-1-aminium (PFBS -N(CH ₃ CH ₂) ₃)	25628-08-4	--



No.	Substance Name	CAS No.	MDL
163	1-Butanesulfonyl fluoride, 1,1,2,2,3,3,4,4,4-nonafluoro- (PFBSF)	375-72-4	--
164	Morpholinium perfluorobutanesulfonate (PFBS-NC ₄ H ₉ O)	503155-89-3	--
165	Magnesium perfluorobutanesulfonate (PFBS-Mg)	507453-86-3	--
166	Ammonium perfluorobutanesulfonate (PFBS-NH ₄)	68259-10-9	--
167	1-(4-butoxy-1-naphthyl)tetrahydrothiophenium nonafluorobutane-1-sulfonate (PFBS-S(C ₄ H ₈)(C ₁₀ H ₆)OC ₄ H ₉)	209482-18-8	--
168	Nonafluoro-1-butanesulfonyl chloride (PFBS-Cl)	2991-84-6	--
169	Sodium perfluorobutanesulfonate (PFBS-Na)	60453-92-1	--
170	Bis(4-t-butylphenyl)iodonium perfluorobutanesulfonate (PFBS-I(C ₆ H ₄) ₂ (C ₄ H ₉) ₂)	194999-85-4	--
171	1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonic acid, compound with 2,2'-iminodiethanol (1:1) (PFBS-NH(C ₂ H ₅ O) ₂)	70225-18-2	--
172	Perfluoropentanoic acid (PFPeA)	2706-90-3	0.01
173	Sodium perfluorovalerate (PFPeA-Na)	2706-89-0	--
174	Potassium nonafluoropentanoate (PFPeA-K)	336-23-2	--
175	Lithium perfluoropentanoate (PFPeA-Li)	198482-22-3	--
176	PFPeASilver perfluoropentanoate (PFPeA-Ag)	2795-30-4	--
177	Ammonium perfluoropentanoate (PFPeA-NH ₄)	68259-11-0	--
178	7H-Dodecafluoro heptane acid (HPFHpA)	1546-95-8	0.01
179	Sodium 7H-perfluoroheptanoate (HPFHpA-Na)	2264-25-7	--
180	Perfluoroheptanesulfonic acid (PFHpS)	375-92-8	0.01
181	Perfluoroheptanesulfonate NA-salt (PFHpS-Na)	21934-50-9	--
182	Potassium Perfluoroheptanesulfonate (PFHpS-K)	60270-55-5	--
183	Ammonium perfluoroheptanesulfonate (PFHpS-NH ₄)	68259-07-4	--
184	Lithium perfluoroheptanesulfonate (PFHpS-Li)	117806-54-9	--
185	Bis(2-hydroxyethyl)ammonium perfluoroheptanesulfonate (PFHpS-NH(C ₄ H ₁₁))*	70225-15-9	--
186	Perfluoroheptanoic acid (PFHpA)	375-85-9	0.01
187	Sodium perfluoroheptanoate (PFHpA-Na)	20109-59-5	--
188	Potassium perfluoroheptanoate (PFHpA-K)	21049-36-5	--
189	Ammonium perfluoroheptanoate (PFHpA-NH ₄)	6130-43-4	--



No.	Substance Name	CAS No.	MDL
190	Cesium perfluoroheptanoate (PFHpA-Cs)	171198-24-6	--
191	Lithium perfluoroheptanoate (PFHpA-Li)	60871-90-1	--
192	1H,1H,2H,2H-Perfluoro-octane-sulphonic acid (6:2 FTS)	27619-97-2	0.01
193	1H,1H,2H,2H-Perfluoro-octane-sulphonic acid sodium salt (6:2 FTS-Na)	27619-94-9	--
194	1H,1H,2H,2H-Perfluoro-octane-sulphonic acid potassium salt (6:2 FTS-K)	59587-38-1	--
195	1H,1H,2H,2H-Perfluoro-octane-sulphonic acid ammonium salt (6:2 FTS-NH ₄)	59587-39-2	--
196	1H,1H,2H,2H-Perfluoro octyl acrylate (6:2 FTA)	17527-29-6	0.1
197	1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH)	2043-47-2	0.1
198	1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH)	647-42-7	0.1
199	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (HFPO)	13252-13-6	0.01
200	Propanoic acid, 2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)-,Ammoniumsalt (HFPO-NH ₄)*	62037-80-3	--
201	Potassium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionate (HFPO-K)*	67118-55-2	--
202	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionyl fluoride (HFPO-F)	2062-98-8	--
203	1H,1H,2H,2H-Perfluorohexane Sulfonate (4:2 FTS)	757124-72-4	0.01
204	1H,1H,2H,2H-Perfluorohexanesulfonic acid sodium (4:2 FTS-Na)	27619-93-8	--
205	Glycine, N-[(heptadecafluorooctyl)sulfonyl]- (FOSAA)	2806-24-8	0.01
206	N-Methyl perfluorooctanesulfonamidoacetic acid (N-Me-FOSAA)	2355-31-9	0.01
207	N-ethyl-N-[(heptadecafluorooctyl)sulphonyl] glycine (N-Et-FOSAA)	2991-50-6	0.01
208	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5 -undecafluoro - (PFPe)	2706-91-4	0.01
209	Sodium perfluoropentanesulfonate (PFPe-Na)	630402-22-1	--
210	Potassium perfluorohexane-1-sulphonate (PFPe-K)	3872-25-1	--
211	Ammonium perfluoropentanesulfonat (PFPe-NH ₄)	68259-09-6	--
212	Perfluoropalmitic acid (PFHxDA)	67905-19-5	0.01
213	Perfluoro-3-methoxy propanoic acid (PFMPA)	377-73-1	0.01
214	Perfluoro-3, 6-dioxacylic acid (NFDHA)	151772-58-6	0.01
215	4, 8-dioxo-3H-perfluorononanoic acid (ADONA)	919005-14-4	0.01
216	Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	113507-82-7	0.01
217	2-[(6-chloro-1,1,2,2,3,3,4,4,5,5,6,6-dodecafluorohexyl)oxyl]-1,1,2,2-tetrafluoro	73606-19-6	0.01



No.	Substance Name	CAS No.	MDL
	roethanesulfonic acid,potassium salt		
218	2-[(8-chloro-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-hexadecafluorooctyl)oxyl]-1,1,2,2-tetrafluoro-ethanesulfonic acid,potassium salt	83329-89-9	0.01

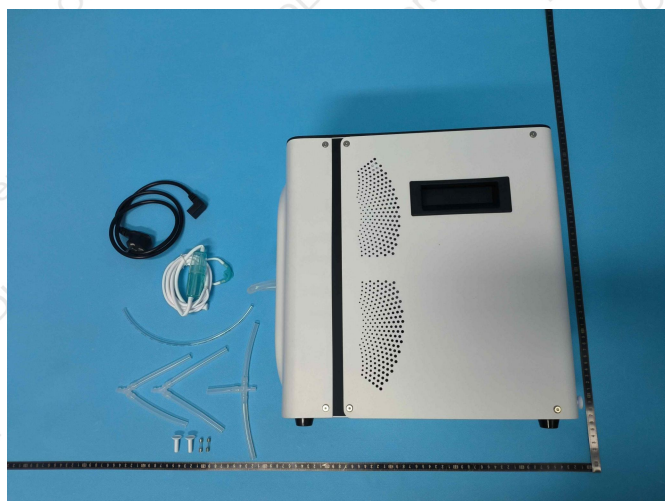
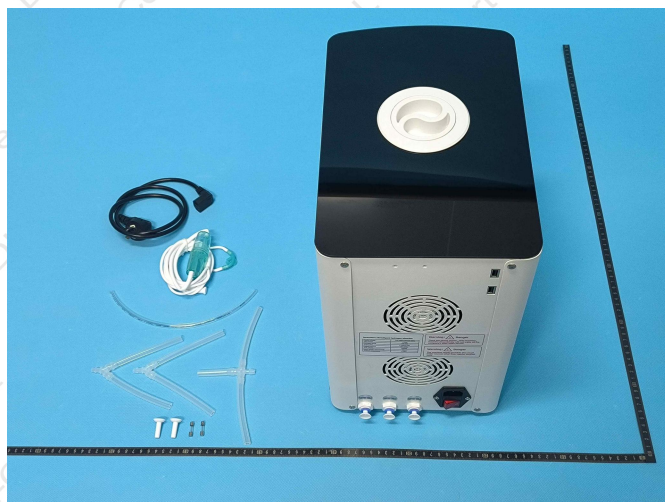
5.Determination of fluorine-based compounds in food contact materials: Total fluorine

Test Methods: With reference to EN 14582 : 2007, analysis was performed by Ion Chromatograph (IC).

Test Item(s)	Unit	MDL	Results	Limit
			01+02+03+04+05+06+07	
Fluorine (F)	mg/kg	5	ND	-



Sample photo:



***** END OF REPORT *****