

## Test Report (PFAS)

No.: SHAEC23017619010

Date: Nov 07, 2023

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Client Name: ARTIFICIAL GRASS WHOLESale

Client Address: 4670 W SILVERADO RANCH BLVD SUITE 100 LAS VEGAS 89139

Sample Name: Artificial Grass

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

SGS Job No.: SHP23-017026

Sample Receiving Date: Oct 27, 2023

Testing Period: Oct 27, 2023 ~ Nov 03, 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).

### Summary:

Targeted 221 Perfluoroalkyl and polyfluoroalkyl substances (PFAS) Content	Pass
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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



94164FEA



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### Test Sample:

### Sample Description:

Test Part ID	Material Description	Test Part ID	Material Description
A1	Green soft solid yarn	A2	Yellow soft solid yarn
A3	Black soft solid with green/black yarn	-	-

### Testing Group:

Test Result ID	Description	Test Part ID	SGS Sample ID
001	Green soft solid yarn	A1	SHA23-0176190-0001.C001
002	Yellow soft solid yarn	A2	SHA23-0176190-0001.C002
003	Black soft solid with green/black yarn	A3	SHA23-0176190-0001.C003

### Targeted 221 Perfluoroalkyl and polyfluoroalkyl substances (PFAS) Content

### Test Method:

With reference to CEN/TS 15968:2010, analysis was performed by LC-MS or LC-MS/MS and GC-MS.



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## Test Results: (Substances in the reporting list of PFAS)

Substance Name	CAS No.	001 Concentration (mg/kg)	RL (mg/kg)
All tested PFAS in list	-	ND	-

## Test Results: (Substances in the reporting list of PFAS)

Substance Name	CAS No.	002 Concentration (mg/kg)	RL (mg/kg)
All tested PFAS in list	-	ND	-

## Test Results: (Substances in the reporting list of PFAS)

Substance Name	CAS No.	003 Concentration (mg/kg)	RL (mg/kg)
All tested PFAS in list	-	ND	-

### Notes:

- (1) The table above only shows detected PFAS, and PFAS that below MDL are not reported. Please refer to Appendix for the full list of tested PFAS.
- (2) RL = Reporting Limit (Test data will be shown if it  $\geq$  RL. RL is not regulatory limit.)  
ND = Not detected (lower than RL), ND is denoted on the PFAS substance.
- (3) The target PFAS is prohibited, and this test requirement is quoted from the client. If PFAS is detected, it is recommended to refer to relevant regulatory remarks to confirm the relevant requirements of PFAS.
- (4) The results of PFAS with the substance name containing note superscript represent the content summary of this PFAS and its relevant salts or derivatives (content summary expressed as selected marker(s) acid).



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## Relevant regulations remarks:

US Market				
Related PFAS regulations in the United States include but not limit to:				
Region	Legislation/ Bill	Scope	Implementat ion date	Requirement
Maine	38 M.R.S. §1614 (LD 1503 and amended by LD 217)	All products	2025.1.1	A manufacturer of a product for sale in the state that contains intentionally added PFAS shall submit a notification
			2030.1.1	Prohibited if PFAS have been intentionally added
Minnesota	HF 1000	Cookware, et al.	2025.1.1	Prohibited if PFAS have been intentionally added
		All products	2026.1.1	A manufacturer of a product for sale in the state that contains intentionally added PFAS shall submit a notification
Rhode Island	S 0016	Cookware, et al.	2025.1.1	Prohibited if PFAS have been intentionally added
		All products	2026.1.1	A manufacturer of a product for sale in the state that contains intentionally added PFAS shall submit a notification
Vermont	HB 152	Cookware, et al.	2024.1.1	Prohibited if PFAS have been intentionally added
		All products	2030.1.1	Prohibited if PFAS have been intentionally added
California	AB 1200	Food packaging substantially made of paper, paperboard, or derived from plant fibers	2023.1.1	Prohibited if either intentionally added that has a functional or technical effect, or $\geq 100$ ppm (as total organic fluorine)
		In handle of cookware or any cookware surface that comes into contact with food, foodstuffs or beverages	2023.1.1	Disclosure of the PFAS presence in cookware on internet website for online sales
			2024.1.1	List the presence of PFAS on product label
Colorado	HB 22-1345	In handle of cookware or any cookware surface that comes into contact with food,	2024.1.1	List the presence of PFAS on product label



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		foodstuffs or beverages		
<b>EU market</b> Related PFAS regulations in the EU include but not limit to:				
Region	Legislation	Scope	Implementation date	Requirement
EU	POPs	Substances, mixtures and articles	2020.7.4	PFOA and its salts $\leq 0.025$ mg/kg Sum of PFOA-related substances $\leq 1$ mg/kg
			2010.8.26	Sum of PFOS and its derivatives in - Substance/ mixture: $\leq 10$ mg/kg - Article: $\leq 1000$ mg/kg - Textile or other coated materials: $\leq 1$ $\mu\text{g}/\text{m}^2$
			2023.8.28	PFHxS and its salts $\leq 0.025$ mg/kg Sum of PFHxs-related substances $\leq 1$ mg/kg
EU	REACH	Substances, mixtures and articles	2023.2.25	C9-C14 PFCA and its salts $\leq 0.025$ mg/kg Sum of C9-C14 PFCA-related substances $\leq 0.26$ mg/kg
EU	REACH	Substances, mixtures and articles	Proposal	Any targeted PFAS $\leq 25$ $\mu\text{g}/\text{kg}$ Sum of targeted PFAS $\leq 250$ $\mu\text{g}/\text{kg}$ PFAS (polymeric PFAS included) $\leq 50$ mg/kg If total fluorine exceeds 50 mg/kg, provide a proof for the fluorine measured as content of either PFAS or non-PFAS.

Results & photo(s) of this report refer to test report SHAEC23017619001.

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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### Appendix:

### Full list of tested PFAS:

No.	Substance Name	CAS No.	RL (mg/kg)
1	Perfluorooctane sulfonates (PFOS) and <sup>Note(1)</sup>	1763-23-1, etc.	0.010
2	N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2	0.010
3	N-methylperfluoro-1-octanesulfonamide (N-MeFOSA)	31506-32-8	0.010
4	2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol (N-EtFOSE)	1691-99-2	0.010
5	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol (N-MeFOSE)	24448-09-7	0.010
6	Perfluorooctane Sulfonamide (PFOSA) <sup>Note(25)</sup>	754-91-6, etc.	0.010
7	Perfluorooctanoic acid (PFOA) <sup>Note(2)</sup>	335-67-1, etc.	0.010
8	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) <sup>Note(3)</sup>	39108-34-4, etc.	0.010
9	Methyl perfluorooctanoate (Me-PFOA)	376-27-2	0.1
10	Ethyl perfluorooctanoate (Et-PFOA)	3108-24-5	0.1
11	1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH) <sup>Note(3)</sup>	678-39-7, etc	0.1
12	1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA) <sup>Note(3)</sup>	27905-45-9, etc	0.1
13	1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA) <sup>Note(3)</sup>	1996-88-9, etc	0.1
14	Perfluoro-1-iodooctane (PFOI)	507-63-1	0.1
15	2H,2H-Perfluorodecane Acid (H2PFDA/8:2 FTCA) <sup>Note(3), Note(11)</sup>	27854-31-5, etc	0.010
16	Perfluorononane Acid (PFNA) <sup>Note(4)</sup>	375-95-1, etc	0.010
17	Perfluorodecane Acid (PFDA) <sup>Note(4)</sup>	335-76-2, etc	0.010
18	Perfluoroundecanoic Acid (PFUnDA) <sup>Note(22)</sup>	2058-94-8, etc	0.010
19	Perfluorododecanoic Acid (PFDoDA) <sup>Note(4)</sup>	307-55-1, etc	0.010
20	Perfluorotridecanoic Acid (PFTTrDA) <sup>Note(24)</sup>	72629-94-8, etc	0.010
21	Perfluorotetradecanoic Acid (PFTDA)	376-06-7	0.010
22	Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	172155-07-6	0.010
23	Perfluorodecane Sulfonate (PFDS) <sup>Note(10)</sup>	335-77-3, etc	0.010
24	1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH)	865-86-1	0.1
25	1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	17741-60-5	0.1
26	1-Iodo-1H,1H,2H,2H-perfluorodecane (8:2 FTI)	2043-53-0	0.1
27	1H,1H,2H,2H-Perfluorodecyltriethoxysilane (8:2 FTSi(OC <sub>2</sub> H <sub>5</sub> ) <sub>3</sub> )	101947-16-4	0.1
28	2H,2H,3H,3H-Perfluoroundecanoic acid (H4PFUnDA/ 8:3 FTCA) <sup>Note(12)</sup>	34598-33-9, etc	0.010
29	1H,1H,2H,2H-Perfluorododecyl methacrylate (10:2 FTMA)	2144-54-9	0.1
30	1H,1H,2H,2H-perfluorotetradecan-1-ol (12:2 FTOH)	39239-77-5	0.1
31	1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS)	120226-60-0	0.010
32	1,1,2,2-Tetrahydroperfluorododecyl iodide (10:2 FTI)	2043-54-1	0.1



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33	1H,1H,2H,2H-Perfluorotetradecyl iodide (12:2 FTI)	30046-31-2	0.1
34	Perfluorohexane Sulfonate (PFHxS) <sup>Note(7)</sup>	355-46-4, etc	0.010
35	N-Methylperfluoro-1-hexanesulfonamide (N-Me-PFHxSA)	68259-15-4	0.010
36	Perfluorohexane sulfonamide (PFHxSA)	41997-13-1	0.010
37	N-[3-(dimethylamino)propyl] tridecafluorohexanesulphonamide (N-AP-FHxSA)	50598-28-2	0.010
38	2-[methyl[(tridecafluorohexyl) sulphonyl]amino]ethyl acrylate)) (N-MeFHSEA)	67584-57-0	0.5
39	Perfluorobutane Acid (PFBA) <sup>Note(13)</sup>	375-22-4, etc	0.010
40	Perfluorobutane Sulfonate (PFBS) <sup>Note(5)</sup>	375-73-5, etc	0.010
41	1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methylbutane-1-sulphonamide (PFBS-NC <sub>3</sub> H <sub>8</sub> O)	34454-97-2	0.010
42	Perfluoropentane Acid (PFPeA) <sup>Note(17)</sup>	2706-90-3, etc	0.010
43	Perfluorohexane Acid (PFHxA) <sup>Note(6)</sup>	307-24-4, etc	0.010
44	Perfluoroheptane Acid (PFHpA) <sup>Note(14)</sup>	375-85-9, etc	0.010
45	Perfluoroheptanesulfonic Acid (PFHpS) <sup>Note(8)</sup>	375-92-8, etc	0.010
46	7H-Dodecanefluoroheptane Acid (7HPFHpA)	1546-95-8	0.010
47	1H,1H,2H,2H-Perfluorooctanesulphonic acid (6:2 FTS) <sup>Note(26)</sup>	27619-97-2, etc	0.010
48	1H,1H,2H,2H-Perfluorooctylacrylate (6:2 FTA)	17527-29-6	0.1
49	1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH)	2043-47-2	0.1
50	1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH)	647-42-7	0.1
51	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid (HFPO-DA) <sup>Note(9)</sup>	13252-13-6, etc	0.010
52	Perfluorooctane sulfonamidoacetic Acid (FOSAA)	2806-24-8	0.010
53	N-Methylperfluoro-1-octanesulfonamidoacetic Acid (N-MeFOSAA)	2355-31-9	0.010
54	N-Ethylperfluorooctane sulfonamidoacetic Acid (N-EtFOSAA)	2991-50-6	0.010
55	Perfluoropentane sulfonic acid (PFPeS) <sup>Note(18)</sup>	2706-91-4, etc	0.010
56	Perfluoro nonane sulfonic acid (PFNS) <sup>Note(19)</sup>	68259-12-1, etc	0.010
57	Perfluoroundecane sulfonic acid (PFUnDS) <sup>Note(16)</sup>	749786-16-1, etc	0.010
58	Perfluorododecanesulfonic acid (PFDoDS) <sup>Note(20)</sup>	79780-39-5, etc	0.010
59	Perfluorotridecane sulfonic acid (PFTrDS) <sup>Note(21)</sup>	791563-89-8, etc	0.010
60	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	757124-72-4	0.010
61	2-Perfluorohexyl ethanoic acid (6:2 FTCA)	53826-12-3	0.010
62	3-Perfluoropentyl propanoic acid (5:3 FTCA)	914637-49-3	0.010
63	Perfluorohexadecanoic Acid (PFHxDA)	67905-19-5	0.010
64	Perfluorooctadecanoic Acid (PFODA)	16517-11-6	0.010
65	Bis(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl) hydrogen phosphate (8:2diPAP) <sup>Note(15)</sup>	678-41-1, etc	0.010



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66	1H,1H,2H,2H-Perfluorooctyl methacrylate (6:2 FTMA)	2144-53-8	0.1
67	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	919005-14-4	0.010
68	Perfluoro-3-methoxypropanoic acid (PFMPA)	377-73-1	0.010
69	Perfluoro-4-methoxybutanoic acid (PFMBA)	863090-89-5	0.010
70	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	151772-58-6	0.010
71	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	756426-58-1	0.010
72	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	763051-92-9	0.010
73	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	113507-82-7	0.010
74	3-Perfluoropropyl propanoic acid (3:3 FTCA)	356-02-5	0.010
75	3-Perfluoroheptyl propanoic acid (7:3 FTCA)	812-70-4	0.010
76	Perfluoropentadecanoic Acid (PFPeDA)	141074-63-7	0.1
77	1H,1H,2H,2H-Perfluorohexyl methacrylate (4:2 FTMA)	1799-84-4	0.1
78	2-(N-ethylperfluorooctanesulfamido) ethyl acrylate (EtFOSAC)	423-82-5	0.1
79	1H,1H,2H-Heptadecafluoro-1-decene (PFDE)	21652-58-4	0.1
80	Perfluorooctyl triethoxysilane (POTS)	51851-37-7	0.1
81	Perfluorododecyl iodide (PFDodI)	307-60-8	0.1
82	Perfluorodecyl iodide (PFDI)	423-62-1	0.1
83	11H-Perfluoroundecanoic acid (11H-PFUnDA) <sup>Note(23)</sup>	1765-48-6, etc	0.1

## Notes:

The following table shows the relationship between PFAS substances and their salts or derivatives.

	No.	Substance Name	CAS No.	RL (mg/kg)
<b>Note(1)</b> PFOS refer to its salts/derivative	84	Potassium Perfluorooctanesulfonate (PFOS-K)	2795-39-3	0.010
	85	Perfluorooctanesulfonic acid, lithium salt (PFOS-Li)	29457-72-5	0.010
	86	Sodium perfluorooctanesulfonate (PFOS-Na)	4021-47-0	0.010
	87	Ammonium perfluorooctanesulfonate (PFOS-NH <sub>4</sub> )	29081-56-9	0.010
	88	Perfluorooctane sulfonate diethanolamine salt (PFOS-NH(C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> )	70225-14-8	0.010
	89	Perfluorooctanesulfonic acid,tetraethylammonium salt (PFOS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )	56773-42-3	0.010
	90	N-decyl-N,N-dimethyldecyl-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 <sub>10</sub> H <sub>21</sub> ) <sub>2</sub> (CH <sub>3</sub> ) <sub>2</sub> )	251099-16-8	0.010
	91	Perfluorooctane Sulfonyl fluoride (POSF)	307-35-7	0.010
<b>Note(2)</b>	92	Magnesium bis(heptadecafluorooctanesulphonate) (POSF-Mg)	91036-71-4	0.010
	93	Sodium perfluorooctanoate (PFOA-Na)	335-95-5	0.010
	94	Potassium perfluorooctanoate (PFOA-K)	2395-00-8	0.010



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PFOA refer to its salts/derivative	95	Silver perfluorooctanoate(PFOA-Ag)	335-93-3	0.010
	96	Perfluorooctanoyl fluoride (PFOA-F)	335-66-0	0.010
	97	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	0.010
	98	Lithium perfluorooctanoate(PFOA-Li)	17125-58-5	0.010
<b>Note(3)</b> 8:2 FTS refer to its salts	99	Potassium 1H,1H,2H,2H-Perfluorododecane sulfonate (8:2 FTS-K)	438237-73-1	0.010
	100	Ammonium 1H,1H,2H,2H-Perfluorododecane sulfonate (8:2 FTS-NH <sub>4</sub> )	149724-40-3	0.010
	101	Sodium 1H,1H,2H,2H-Perfluorododecane sulfonate (8:2 FTS-Na)	27619-96-1	0.010
<b>Note(4)</b> PFNA/ PFDA/ PFDoDA refer to its salts	102	Perfluorononanoate Na-Salt (PFNA-Na)	21049-39-8	0.010
	103	Nonanoic acid, heptadecafluoro-, ammonium salt (PFNA-NH <sub>4</sub> )	4149-60-4	0.010
	104	Potassium perfluorononanoate (PFNA-K)	21049-38-7	0.010
	105	Perfluorononanoate Li-Salt (PFNA-Li)	60871-92-3	0.010
	106	Silver perfluorononanoate (PFNA-Ag)	7358-16-9	0.010
	107	Sodium perfluorodecanoate (PFDA-Na)	3830-45-3	0.010
	108	Perfluorodecanoate ammonium salt (PFDA-NH <sub>4</sub> )	3108-42-7	0.010
	109	Potassium perfluorodecanoate (PFDA-K)	51604-85-4	0.010
	110	Silver perfluorodecanoate (PFDA-Ag)	5784-82-7	0.010
	111	Lithium perfluorodecanoate (PFDA-Li)	84743-32-8	0.010
	112	Ammonium tricosfluorododecanoate (PFDoDA-NH <sub>4</sub> )	3793-74-6	0.010
<b>Note(5)</b> PFBS refers to its salts	113	Sodium perfluorododecanoate (PFDoDA-Na)	60872-01-7	0.010
	114	Perfluorobutanesulfonate K-salt (PFBS-K)	29420-49-3	0.010
	115	Perfluorobutanesulfonic Acid Hydrate (PFBS-H <sub>2</sub> O)	59933-66-3	0.010
	116	lithium perfluorobutanesulfonate (PFBS-Li)	131651-65-5	0.010
	117	Triphenyl Sulfonium Perfluorobutane Sulfonate (PFBS-S(C <sub>6</sub> H <sub>5</sub> ) <sub>3</sub> )	144317-44-2	0.010
	118	Dimethyl(phenyl)sulfonium perfluorobutanesulfonate (PFBS-S(CH <sub>3</sub> ) <sub>2</sub> C <sub>6</sub> H <sub>5</sub> )	220133-51-7	0.010
	119	Tetrabutyl-phosphonium nonafluoro-butane-1-sulfonate (PFBS-P(C <sub>4</sub> H <sub>9</sub> ) <sub>4</sub> )	220689-12-3	0.010
	120	N,N,N,-triethylethanaminium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonate(PFBS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )	25628-08-4	0.010
	121	Nonafluorobutanesulfonyl fluoride (PFBS-F)	375-72-4	0.010
	122	Morpholinium perfluorobutanesulfonate (PFBS-NC <sub>4</sub> H <sub>9</sub> O)	503155-89-3	0.010
	123	Magnesium perfluorobutanesulfonate (PFBS-Mg)	507453-86-3	0.010
	124	Ammonium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonate (PFBS-NH <sub>4</sub> )	68259-10-9	0.010
	125	1-(4-butoxy-1-naphthyl)tetrahydrothiophenium nonafluorobutane-1-sulfonate (PFBS-SC <sub>18</sub> H <sub>23</sub> O)	209482-18-8	0.010
	126	1,1,2,2,3,3,4,4,4-Nonafluorobutane-1-sulfonyl chloride (PFBS-Cl)	2991-84-6	0.010
	127	Sodium perfluorobutanesulfonate (PFBS-Na)	60453-92-1	0.010
	128	Bis(4-tert-butylphenyl)iodonium perfluoro-1-butanesulfonate (PFBS-I(C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> (C <sub>4</sub> H <sub>9</sub> ) <sub>2</sub> )	194999-85-4	0.010



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	129	1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonic acid, compound with 2,2'-iminodiethanol (1:1) (PFBS-NH(C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> )	70225-18-2	0.010
<b>Note(6)</b> PFHxA refers to its salts	130	Ammonium perfluorohexanoate (APFHx)	21615-47-4	0.010
	131	Sodium perfluorohexanoate (PFHxA-Na)	2923-26-4	0.010
	132	Potassium perfluorohexanoate (PFHxA-K)	3109-94-2	0.010
	133	Perfluorohexanoyl fluoride (PFHxA-F)	355-38-4	0.010
	134	Silver perfluorohexanoate (PFHxA-Ag)	336-02-7	0.010
	135	Lithium perfluorohexanoate (PFHxA-Li)	90430-61-8	0.010
<b>Note(7)</b> PFHxS refers to its salts	136	Perfluorohexanesulfonate Na-salt (PFHxS-Na)	82382-12-5	0.010
	137	Perfluorohexanesulfonate K-salt (PFHxS-K)	3871-99-6	0.010
	138	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	0.010
	139	Ammonium perfluorohexane-1-sulphonate (PFHxS-NH <sub>4</sub> )	68259-08-5	0.010
	140	Phosphonium, triphenyl(phenylmethyl)-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-P(C <sub>6</sub> H <sub>5</sub> ) <sub>3</sub> C <sub>7</sub> H <sub>7</sub> )	1000597-52-3	0.010
	141	N,N,N-tributylbutan-1-aminium tridecafluorohexane-1-sulfonate (PFHxS-N(C <sub>4</sub> H <sub>9</sub> ) <sub>4</sub> )	108427-54-9	0.010
	142	N,N,N-triethylethanaminium tridecafluorohexane-1-sulfonate (PFHxS-N(C <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> )	108427-55-0	0.010
	143	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. With pyrrolidine (1:1) (PFHxS-NC <sub>4</sub> H <sub>9</sub> )	1187817-57-7	0.010
	144	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 <sub>10</sub> H <sub>14</sub> ) <sub>3</sub> C <sub>5</sub> H <sub>4</sub> )	1310480-24-0	0.010
	145	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 <sub>8</sub> H <sub>10</sub> ) <sub>2</sub> C <sub>13</sub> H <sub>12</sub> )	1310480-27-3	0.010
	146	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 <sub>8</sub> H <sub>10</sub> ) <sub>2</sub> C <sub>17</sub> H <sub>12</sub> )	1310480-28-4	0.010
	147	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 <sub>42</sub> H <sub>70</sub> O <sub>35</sub> )	1329995-45-0	0.010
	148	Gamma-Cyclodextrin, compd. with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-	1329995-69-8	0.010



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	hexanesulfonic acid ion(1-)(1:1)(PFHxS-C <sub>48</sub> H <sub>80</sub> O <sub>40</sub> )		
149	Sulfonium, triphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)(PFHxS-S(C <sub>6</sub> H <sub>5</sub> ) <sub>3</sub> )	144116-10-9	0.010
150	Quinolinium, 1-(carboxymethyl)-4-[2-[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 <sub>44</sub> H <sub>37</sub> N <sub>2</sub> O <sub>2</sub> )	1462414-59-0	0.010
151	Iodonium, diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-I(C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> )	153443-35-7	0.010
152	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-N(CH <sub>3</sub> ) <sub>4</sub> )	189274-31-5	0.010
153	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 <sub>2</sub> (CH <sub>3</sub> ) <sub>3</sub> )	202189-84-2	0.010
154	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 <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> (C <sub>4</sub> H <sub>9</sub> ) <sub>2</sub> )	213740-81-9	0.010
155	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, gallium salt (9Cl)(PFHxS-Ga)	341035-71-0	0.010
156	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 <sub>7</sub> H <sub>7</sub> ) <sub>2</sub> C <sub>6</sub> H <sub>5</sub> )	341548-85-4	0.010
157	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	0.010
158	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	0.010
159	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	0.010
160	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-S3(C <sub>6</sub> H <sub>5</sub> ) <sub>4</sub> (C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> )	421555-73-9	0.010
161	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(PFHxS-I(C <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> (C <sub>5</sub> H <sub>11</sub> ) <sub>2</sub> )	421555-74-0	0.010
162	Perfluorohexane sulphonyl fluoride(PFHxS-F)	423-50-7	0.010
163	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 <sub>6</sub> H <sub>4</sub> ) <sub>3</sub> (C <sub>4</sub> H <sub>9</sub> ) <sub>3</sub> )	425670-70-8	0.010
164	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, zinc salt (PFHxS-Zn)	70136-72-0	0.010
165	Tridecafluorohexanesulphonic acid, compound with 2,2'-iminodiethanol (1:1)(PFHxS-NH(C <sub>2</sub> H <sub>5</sub> O) <sub>2</sub> )	70225-16-0	0.010



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	166	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 <sub>2</sub> H <sub>5</sub> ) <sub>3</sub> )	72033-41-1	0.010
	167	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 <sub>6</sub> H <sub>4</sub> ) <sub>2</sub> (C <sub>4</sub> H <sub>9</sub> ) <sub>2</sub> )	866621-50-3	0.010
	168	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 <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> C <sub>7</sub> H <sub>7</sub> )	910606-39-2	0.010
	169	Sulfonium, [4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-S(C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> C <sub>10</sub> H <sub>9</sub> O <sub>2</sub> )	911027-68-4	0.010
	170	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, cesium salt (1:1) (PFHxS-Cs) (PFHxS-Cs)	92011-17-1	0.010
	171	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 <sub>28</sub> H <sub>31</sub> O <sub>4</sub> )	928049-42-7	0.010
	172	Perfluorohexylsulfonyl chloride (PFHxS-Cl)	55591-23-6	0.010
<b>Note(8)</b> PFHpS refers to its salts	173	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 <sup>3,7</sup> ]dec-2-yl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (PFHxS-Sulfonium, propenoate polymer)	911027-69-5	0.010
	174	Perfluoroheptanesulfonate Na-salt (PFHpS-Na)	21934-50-9	0.010
	175	Potassium Perfluoroheptanesulfonate (PFHpS-K)	60270-55-5	0.010
	176	Ammonium perfluoroheptanesulfonate (PFHpS-NH <sub>4</sub> )	68259-07-4	0.010
<b>Note(9)</b> HFPO-DA refers to its salts	177	Lithium perfluoroheptanesulfonate (PFHpS-Li)	117806-54-9	0.010
	178	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, ammonium salts (HFPO-DA-NH <sub>4</sub> )	62037-80-3	0.010
	179	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, K- salts (HFPO-DA-K)	67118-55-2	0.010
	180	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its acyl halides (HFPO-DA-F)	2062-98-8	0.010
<b>Note(10)</b> PFDS refer to its salts	181	Perfluorodecanesulfonate Na-salt (PFDS-Na)	2806-15-7	0.010
	182	Perfluorodecanesulfonate K-salt (PFDS-K)	2806-16-8	0.010
	183	Perfluorodecanesulfonic acid ammonium salt (PFDS-NH <sub>4</sub> )	67906-42-7	0.010
<b>Note(11)</b> H2PFDA / 8:2 FTCA refer to	184	Tetrabutylphosphonium 2H <sub>2</sub> 2H-Perfluorodecanoate (8:2 FTCA-P(C <sub>4</sub> H <sub>9</sub> ) <sub>4</sub> )	882489-14-7	0.010



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its salt/derivative				
<b>Note(12)</b> H4PFUnDA/ 8:3 FTCA refer to its salts	185	Potassium 2H,2H,3H,3H-Perfluoroundecanoate (H4PFUnDA-K)	83310-58-1	0.010
<b>Note(13)</b> PFBA refers to its salts	186	Ammonium perfluorobutanoate (PFBA-NH <sub>4</sub> )	10495-86-0	0.010
	187	Sodium perfluorobutanoate (PFBA-Na)	2218-54-4	0.010
	188	Potassium heptafluorobutanoate (PFBA-K)	2966-54-3	0.010
	189	Silver perfluorobutanoate (PFBA-Ag)	3794-64-7	0.010
	190	Lithium perfluorobutanoate (PFBA-Li)	4146-76-3	0.010
<b>Note(14)</b> PFHpA refers to its salts	191	Sodium perfluoroheptanoate (PFHpA-Na)	20109-59-5	0.010
	192	Potassium perfluoroheptanoate (PFHpA-K)	21049-36-5	0.010
	193	Ammonium perfluoroheptanoate (PFHpA-NH <sub>4</sub> )	6130-43-4	0.010
	194	Cesium perfluoroheptanoate (PFHpA-Cs)	171198-24-6	0.010
	195	Silver perfluoroheptanoate (PFHpA-Ag)	424-05-5	0.010
	196	Lithium perfluoroheptanoate (PFHpA-Li)	60871-90-1	0.010
<b>Note(15)</b> 8:2diPAP refers to its salts	197	Sodium bis(1H,1H,2H,2H-perfluorodecyl)phosphate (8:2diPAP-Na)	114519-85-6	0.010
<b>Note(16)</b> PFUnDS refers to its salts	198	Sodium Perfluoroundecane sulfonic (PFUnDS-Na)	441296-91-9 (anion)	0.010
<b>Note(17)</b> PFPeA refers to its salts	199	Sodium perfluoropentanoate(PFPeA-Na)	2706-89-0	0.010
	200	Potassium perfluoropentanoate(PFPeA-K)	336-23-2	0.010
	201	Lithium perfluoropentanoate (PFPeA-Li)	198482-22-3	0.010
	202	Silver perfluoropentanoate (PFPeA-Ag)	2795-30-4	0.010
	203	Ammonium perfluoropentanoate(PFPeA-NH <sub>4</sub> )	68259-11-0	0.010
<b>Note(18)</b> PFPeS refers to its salts	204	Sodium perfluoro-1-pentanesulfonate (PFPeS-Na)	630402-22-1	0.010
	205	Potassium perfluoropentane-1-sulphonate (PFPeS-K)	3872-25-1	0.010
	206	Ammonium perfluoropentanesulfonate (PFPeS-NH <sub>4</sub> )	68259-09-6	0.010
<b>Note(19)</b> PFNS refers to its salts	207	Sodium perfluoro-1-nonanesulfonate (PFNS-Na)	98789-57-2	0.010
	208	ammonium nonadecafluorononanesulphonate (PFNS-NH <sub>4</sub> )	17202-41-4	0.010
	209	Potassium perfluorononanesulfonate (PFNS-K)	29359-39-5	0.010
<b>Note(20)</b> PFDsDS refers to its salts	210	Sodium perfluoro-1-dodecanesulfonate (PFDsDS-Na)	1260224-54-1	0.010
<b>Note(21)</b> PFTrDS refers to its salts	211	Sodium perfluoro-1-tridecanesulfonate (PFTrDS-Na)	174675-49-1	0.010
<b>Note(22)</b>	212	Perfluoroundecanoic acid sodium salt (PFUnDA-Na)	60871-96-7	0.010
	213	Ammonium perfluoroundecanoate (PFUnDA-NH <sub>4</sub> )	4234-23-5	0.010



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PFUnDA refers to its salts	214	Potassium perfluoroundecanoate (PFUnDA-K)	30377-53-8	0.010
<b>Note(23)</b> 11H-PFUnDA refers to its salts	215	Potassium 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-icosafuoroundecanoate (11H-PFUnDA-K)	307-71-1	0.1
	216	Ammonium 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-icosafuoroundecanoate (11H-PFUnDA-NH <sub>4</sub> )	5081-02-7	0.1
<b>Note(24)</b> PFTTrDA refers to its salts	217	Ammonium perfluorotridecanoate (PFTTrDA-NH <sub>4</sub> )	4288-72-6	0.010
<b>Note(25)</b> PFOSA refers to its salts	218	Perfluorooctanesulfonamide lithium salt (1:1) (PFOSA-Li)	76752-79-9	0.010
<b>Note(26)</b> 6:2 FTS refers to its salts	219	Sodium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-Na)	27619-94-9	0.010
	220	Potassium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-K)	59587-38-1	0.010
	221	Ammonium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-NH <sub>4</sub> )	59587-39-2	0.010



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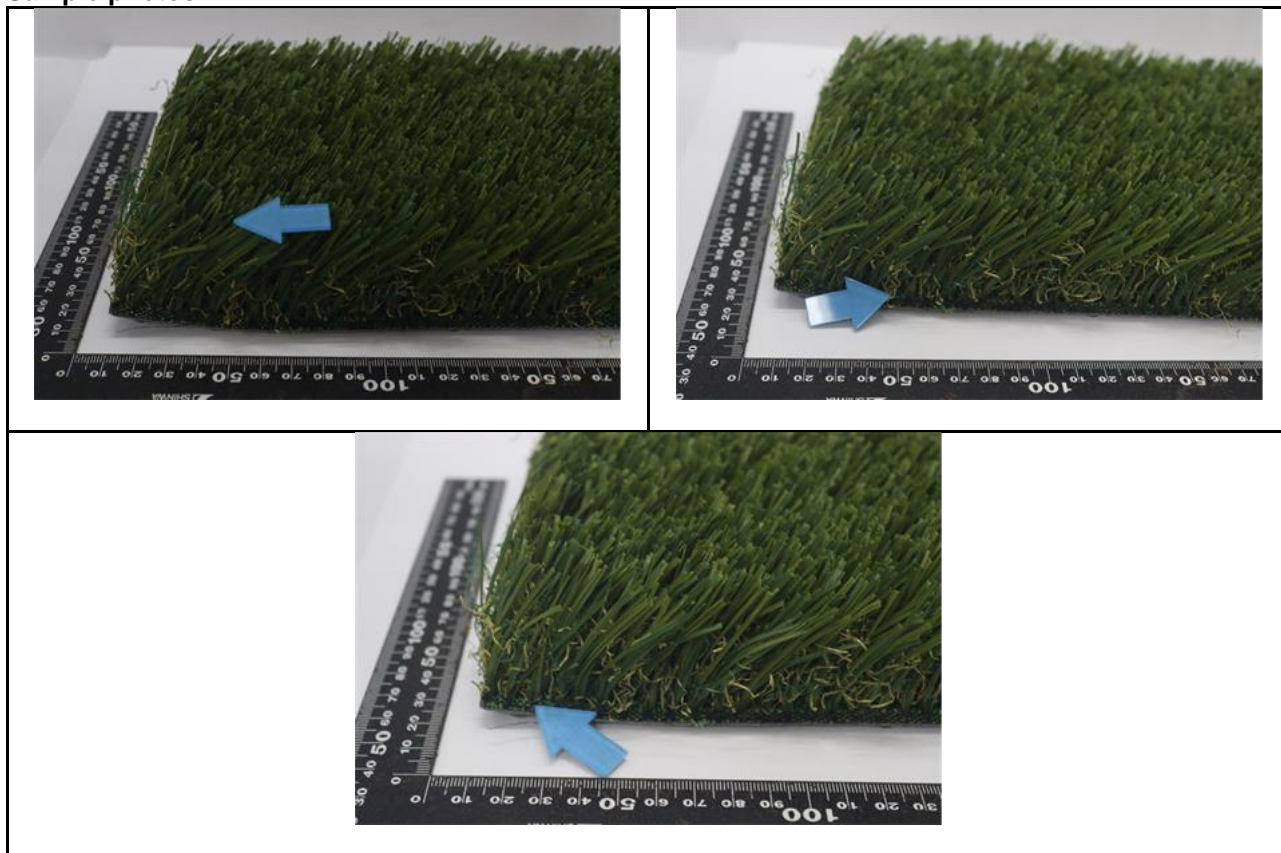
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