**Test Sample:**

**Test Part Description:**

| SN ID | Sample No. | SGS Sample ID | Description |
|---|---|---|---|
| SN1 | A2 | SHA26-0274810-0001.C002 | Colorful solid |

(1) List of PFAS, its salts & derivatives

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 1 | PFOS, its salts & derivatives | Perfluorooctane sulfonic acid (PFOS) | 1763-23-1 | 0.010 |
| 2 | | Potassium Perfluorooctanesulfonate (PFOS-K) | 2795-39-3 | -- |
| 3 | | Perfluorooctanesulfonic acid, lithium salt (PFOS-Li) | 29457-72-5 | -- |
| 4 | | Sodium perfluorooctanesulfonate (PFOS-Na) | 4021-47-0 | -- |
| 5 | | Ammonium perfluorooctanesulfonate (PFOS-$NH_4$) | 29081-56-9 | -- |
| 6 | | Perfluorooctane sulfonate diethanolamine salt (PFOS-$NH_2(C_2H_4OH)_2$) | 70225-14-8 | -- |
| 7 | | Perfluorooctanesulfonic acid,tetraethylammonium salt (PFOS-$N(C_2H_5)_4$) | 56773-42-3 | -- |
| 8 | | 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 | -- |
| 9 | | TetrabutylAmmonium perfluorooctanesulfonate (PFOS-$N(C_4H_9)_4$) | 111873-33-7 | -- |
| 10 | | Perfluorooctane Sulfonyl fluoride (PFOS-F) | 307-35-7 | -- |
| 11 | | Magnesium bis(heptadecafluorooctanesulphonate) (PFOS-Mg) | 91036-71-4 | -- |
| 12 | | Piperidine 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctanesulfonate | 71463-74-6 | -- |
| 13 | | Perfluorooctanesulfonate | 45298-90-6 | -- |
| 14 | | Triethylammonium perfluorooctane sulfonate (PFOS-$NH(C_2H_5)_3$) | 54439-46-2 | -- |
| 15 | | Tetramethylammonium perfluorooctane sulfonate (PFOS-$N(CH_3)_4$) | 56773-44-5 | -- |
| 16 | | N,N,N-Tripropylpentan-1-aminium heptadecafluorooctane-1-sulfonate (PFOS-$N(C_3H_7)_3(C_5H_{11})$) | 56773-56-9 | -- |
| 17 | | N,N-Dibutyl-N-methylbutan-1-aminium heptadecafluorooctane-1-sulfonate (PFOS-$N(C_4H_9)_3(CH_3)$) | 124472-68-0 | -- |
| 18 | | Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, salt with perfluoro-1-octanesulfonic acid (1:1) | 213740-80-8 | -- |
| 19 | | Diphenyl(2,4,6-trimethylphenyl)sulfonium perfluoro-1-octanesulfonate | 258341-99-0 | -- |
| 20 | | 1-Hexadecylpyridinium perfluoro-1-octanesulfonate | 334529-63-4 | -- |
| 21 | | N,N,N-Triethyldecan-1-aminium heptadecafluorooctane-1-sulfonate | 773895-92-4 | -- |
| 22 | | Tetrabutylphosphonium perfluorooctane sulfonate (PFOS-P ($C_4H_9)_4$)) | 2185049-59-4 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 23 | FOSAA, its salts | Perfluorooctanesulfonic acid diethylamine salt (PFOS-$C_4H_{11}N$) | 2205029-08-7 | -- |
| 24 | | heptyldimethyl{2-[(2-methylprop-2-enoyl)oxy]ethyl}azanium heptadecafluorooctane-1-sulfonate (PFOS-$C_{15}H_{30}NO_2$) | 1203998-97-3 | -- |
| 25 | | Perfluorooctane sulfonic anhydride (PFOSAN) | 423-92-7 | -- |
| 26 | | Perfluoro-1-octanesulfonyl chloride (PFOS-Cl) | 423-60-9 | -- |
| 27 | | Perfluorooctane sulfonamidoacetic Acid (FOSAA) | 2806-24-8 | 0.010 |
| 28 | | N-[(Perfluorooctyl)sulfonyl]glycinate (FOSAA(anion)) | 909405-47-6 | -- |
| 29 | | N-[(Perfluorooctyl)sulfonyl]glycine potassium salt (1:1) (FOSAA-K) | 75260-69-4 | -- |
| 30 | | N-[(Perfluorooctyl)sulfonyl]glycine sodium salt (1:1) (FOSAA-Na) | 115716-87-5 | -- |
| 31 | N-MeFOSAA, its salts | N-Methylperfluoro-1-octanesulfonamidoacetic Acid (N-MeFOSAA) | 2355-31-9 | 0.010 |
| 32 | | 2-(N-Methylperfluorooctanesulfonamido)acetate (N-Me-FOSAA(anion)) | 909405-48-7 | -- |
| 33 | | Potassium N-((heptadecafluorooctyl)sulphonyl)-N-methylglycinate (N-Me-FOSAA-K) | 70281-93-5 | -- |
| 34 | | Cyclo-hexachloro (N-methyl- (N-(perfluorooctylsulphonyl) glycinato-O1:O1')) dihydroxytrichromium | 97298-47-0 | -- |
| 35 | N-EtFOSAA, its salts | N-Ethylperfluorooctane sulfonamidoacetic Acid (N-EtFOSAA) | 2991-50-6 | 0.010 |
| 36 | | Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt (N-Et-FOSAA-K) | 2991-51-7 | -- |
| 37 | | 2-(N-Ethyl-perfluorooctanesulfonamido)acetate (N-Et-FOSAA(anion)) | 909405-49-8 | -- |
| 38 | | Ammonium 2-(N-ethylperfluorooctanesulfonamido)acetate (N-Et-FOSAA-$NH_4$) | 2991-52-8 | -- |
| 39 | | Sodium 2-(N-ethylperfluorooctanesulfonamido)acetate (N-Et-FOSAA-Na) | 3871-50-9 | -- |
| 40 | | Diaquatetrachloro[mu-[N-ethyl-N-[(perfluorooctyl) sulfonyl]glycinato-O1:O1']]-mu-hydroxybis[2-methylpropanol]dichromium | 68891-96-3 | -- |
| 41 | -- | N-ethylperfluoro-1-octanesulfonamide (N-EtFOSA) | 4151-50-2 | 0.010 |
| 42 | -- | N-methylperfluoro-1-octanesulfonamide (N-MeFOSA) | 31506-32-8 | 0.010 |
| 43 | -- | 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol (N-EtFOSE) | 1691-99-2 | 0.010 |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 44 | -- | 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol (N-MeFOSE) | 24448-09-7 | 0.010 |
| 45 | PFOSA, its salts | Perfluorooctane Sulfonamide (PFOSA) | 754-91-6 | 0.010 |
| 46 | | Perfluorooctanesulfonamide lithium salt (1:1) (PFOSA-Li) | 76752-79-9 | -- |
| 47 | | Perfluorooctanesulfonamide Sodium salt (1:1) (PFOSA-Na) | 76752-78-8 | -- |
| 48 | | Perfluorooctanesulfonamide Potassium salt (1:1) (PFOSA-K) | 76752-70-0 | -- |
| 49 | | Perfluorooctanesulfonamide Ammonium salt (1:1) (PFOSA-$NH_4$) | 76752-72-2 | -- |
| 50 | | Heptadecafluorooctane-1-sulphonamide, compound with triethylamine (1:1) (PFOSA-$C_6H_{15}N$) | 76752-82-4 | -- |
| 51 | PFOA, its salts & derivatives | Perfluorooctanoic acid (PFOA) | 335-67-1 | 0.010 |
| 52 | | Sodium perfluorooctanoate (PFOA-Na) | 335-95-5 | -- |
| 53 | | Potassium perfluorooctanoate (PFOA-K) | 2395-00-8 | -- |
| 54 | | Silver perfluorooctanoate (PFOA-Ag) | 335-93-3 | -- |
| 55 | | Perfluorooctanoyl fluoride (PFOA-F) | 335-66-0 | -- |
| 56 | | Ammonium pentadecafluorooctanoate (APFO) | 3825-26-1 | -- |
| 57 | | Lithium perfluorooctanoate (PFOA-Li) | 17125-58-5 | -- |
| 58 | | Cobalt perfluorooctanoate (PFOA-Co) | 35965-01-6 | -- |
| 59 | | Cesium perfluorooctanoate (PFOA-Cs) | 17125-60-9 | -- |
| 60 | | 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 | -- |
| 61 | | Pentadecafluorooctanoic acid--piperazine (2/1) (PFOA-$NH(C_4H_{10}N)$) | 423-52-9 | -- |
| 62 | | Pentadecafluorooctanoate (anion) | 45285-51-6 | -- |
| 63 | | Perfluorooctanoic Anhydride | 33496-48-9 | -- |
| 64 | | N,N,N-Triethylethanaminium perfluorooctanoate | 98241-25-9 | -- |
| 65 | | Perfluorooctanoate N,N,N-Trimethylmethanaminium | 32609-65-7 | -- |
| 66 | | Tetrapropylammonium perfluorooctanoate | 277749-00-5 | -- |
| 67 | | Potassium pentadecafluorooctanoate--water (1/1/2) (PFOA-$K(H_2O)_2$) | 98065-31-7 | -- |
| 68 | | Perfluorooctanoic acid compd. with ethanamine (1:1) (PFOA-$C_2H_7N$) | 1376936-03-6 | -- |
| 69 | | Pentadecafluorooctanoic acid--pyridine (1/1) (PFOA-$C_5H_5N$) | 95658-47-2 | -- |
| 70 | | pentadecafluorooctanoic acid- 1-phenylpiperazine(1:1) (PFOA-$C_{10}H_{14}N_2$) | 1514-68-7 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 71 | 8:2 FTS, its salts | N,N,N-Trimethyloctan-1-aminium pentadecafluorooctanoate (PFOA-$C_{11}H_{26}N$) | 927835-01-6 | -- |
| 72 | | Pentadecafluorooctanoyl chloride (PFOA-Cl) | 335-64-8 | -- |
| 73 | | Perfluorooctanoyl Bromide (PFOA-Br) | 222037-87-8 | -- |
| 74 | | 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS) | 39108-34-4 | 0.010 |
| 75 | | Potassium 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2 FTS-K) | 438237-73-1 | -- |
| 76 | | Ammonium 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2 FTS-$NH_4$) | 149724-40-3 | -- |
| 77 | | Sodium 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2 FTS-Na) | 27619-96-1 | -- |
| 78 | | 2-(Perfluorooctyl)ethane-1-sulfonate (8:2 FTS(anion)) | 481071-78-7 | -- |
| 79 | | 2-(Perfluorooctyl)ethanesulfonyl chloride (8:2 FTS-Cl) | 27619-90-5 | -- |
| 80 | -- | Methyl perfluorooctanoate (Me-PFOA) | 376-27-2 | 0.200 |
| 81 | -- | Ethyl perfluorooctanoate (Et-PFOA) | 3108-24-5 | 0.200 |
| 82 | -- | 1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA) | 27905-45-9 | 0.100 |
| 83 | -- | 1H,1H,2H,2H-Perfluorodecyl methacrylate (8:2 FTMA) | 1996-88-9 | 0.100 |
| 84 | -- | Perfluoro-1-iodooctane (PFOI) | 507-63-1 | 0.200 |
| 85 | 8:2 FTCA, its salts | 2H,2H-Perfluorodecane Acid (8:2 FTCA) | 27854-31-5 | 0.010 |
| 86 | | Tetrabutylphosphonium 2H,2H-Perfluorodecanoate (8:2 FTCA-P($C_4H_9$)$_4$) | 882489-14-7 | -- |
| 87 | -- | 1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH) | 678-39-7 | 0.100 |
| 88 | -- | 1-Iodo-1H,1H,2H,2H-perfluorodecane (8:2 FTI) | 2043-53-0 | 0.100 |
| 89 | -- | 1H,1H,2H,2H-Perfluorodecyltriethoxysilane (8:2 FTSi($OC_2H_5$)$_3$) | 101947-16-4 | 0.100 |
| 90 | 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 | 0.010 |
| 91 | | Sodium bis(1H,1H,2H,2H-perfluorodecyl)phosphate (8:2diPAP-Na) | 114519-85-6 | -- |
| 92 | | Bis(2-hydroxyethyl)ammonium bis((perfluorooctyl)ethyl) hydrogen phosphate | 57677-97-1 | -- |
| 93 | | Bis[2-(perfluorooctyl)ethyl] phosphate ammonium salt (8:2 diPAP-$NH_4$) | 93776-20-6 | -- |
| 94 | | 8:2 Fluorotelomer phosphate diester ion (1-) | 1411713-91-1 | -- |
| 95 | 8:3 FTCA, its salts | 2H,2H,3H,3H-Perfluoroundecanoic acid (8:3 FTCA) | 34598-33-9 | 0.010 |
| 96 | | Potassium 2H,2H,3H,3H-Perfluoroundecanoate (8:3 FTCA-K) | 83310-58-1 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 97 | | 2H,2H,3H,3H-Perfluoroundecanoate (8:3 FTCA-Li) | 67304-23-8 | -- |
| 98 | -- | 1H,1H,2H-Heptadecafluoro-1-decene (PFDE) | 21652-58-4 | 0.200 |
| 99 | -- | 3-Perfluoroheptyl propanoic acid (7:3 FTCA) | 812-70-4 | 0.010 |
| 100 | -- | 1H,1H,2H,2H-Perfluorodecyltrichlorosilane | 78560-44-8 | 0.100 |
| 101 | -- | 1H,1H,2H,2H-Perfluorodecyltrimethoxysilane | 83048-65-1 | |
| 102 | -- | 2H-Perfluoro-2-decenoic acid (8:2 FTUCA) | 70887-84-2 | 0.010 |
| 103 | -- | 6:8 Perfluorophosphinic acid (6:8 PFPi) | 610800-34-5 | 0.010 |
| 104 | | 8:8 Perfluorophosphinic acid (8:8 PFPi) | 40143-79-1 | 0.010 |
| 105 | 8:8 PFPi, its salts | Bis(heptadecafluorooctyl)phosphinic Acid Sodium Salt (8:8 PFPi-Na) | 500776-69-2 | -- |
| 106 | | Bis(perfluorooctyl) phosphinic acid erbium(3+) salt (8:8 PFPi-Er) | 500776-70-5 | -- |
| 107 | | Bis(perfluorooctyl) phosphinic acid ytterbium(3+) salt (8:8 PFPi-Yb) | 500776-71-6 | -- |
| 108 | -- | 1H,1H,2H,2H-perfluorodecyl acetate (8:2 FTOAc) | 37858-04-1 | 0.100 |
| 109 | | 8:2 Fluorotelomer phosphate monoester (8:2 monoPAP) | 57678-03-2 | 0.100 |
| 110 | | 8:2 Fluorotelomer diammonium phosphate | 93857-44-4 | - |
| 111 | | Disodium 1H,1H,2H,2H-perfluorodecylphosphate | 438237-75-3 | - |
| 112 | 8:2 monoPAP, its salts | Ammonium bis[2-(perfluorohexyl)ethyl] phosphate | 1764-95-0 | - |
| 113 | | 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctanol phosphate ammonium salt | 92401-44-0 | - |
| 114 | | Sodium 1H,1H,2H,2H-perfluorooctylphosphate | 144965-22-0 | - |
| 115 | | Monopotassium monoperfluorohexyl ethylphosphate | 150033-28-6 | - |
| 116 | | Ammonium 2-(perfluorohexyl)ethyl hydrogen phosphate | 2353-52-8 | - |
| 117 | | Perfluorononane Acid (PFNA) | 375-95-1 | 0.010 |
| 118 | | Perfluorononanoate Na-Salt (PFNA-Na) | 21049-39-8 | -- |
| 119 | | Nonanoic acid, heptadecafluoro-, ammonium salt (PFNA-$NH_4$) | 4149-60-4 | -- |
| 120 | | Potassium perfluorononanoate (PFNA-K) | 21049-38-7 | -- |
| 121 | PFNA, its salts | Perfluorononanoate Li-Salt (PFNA-Li) | 60871-92-3 | -- |
| 122 | | Silver perfluorononanoate (PFNA-Ag) | 7358-16-9 | -- |
| 123 | | Methanaminium perfluorononanoate (PFNA-$NH_3(CH_3)$) | 77032-23-6 | -- |
| 124 | | Nonanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluoro-, compd. with N-ethylethanamine (1:1) PFNA-$NH_2(C_2H_5)_2$) | 77032-27-0 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 154 | | Perfluorododecanoate (anion) | 171978-95-3 | -- |
| 155 | | Sodium perfluoro-n-dodecanoic acid (PFDoDA-Na) | 307-67-5 | -- |
| 156 | PFTrDA, its salts | Perfluorotridecanoic Acid (PFTrDA) | 72629-94-8 | 0.010 |
| 157 | | Ammonium perfluorotridecanoate (PFTrDA-$NH_4$) | 4288-72-6 | -- |
| 158 | | Sodium perfluorotridecanoate (PFTrDA-Na) | 60872-01-7 | -- |
| 159 | | Perfluorotridecanoate (anion) | 862374-87-6 | -- |
| 160 | PFTDA, its salts | Perfluorotetradecanoic Acid (PFTDA) | 376-06-7 | 0.010 |
| 161 | | Perfluorotetradecanoate (anion) | 365971-87-5 | -- |
| 162 | -- | Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA) | 172155-07-6 | 0.010 |
| 163 | PFDS, its salts | Perfluorodecane sulfonic acid (PFDS) | 335-77-3 | 0.010 |
| 164 | | Sodium perfluorodecanesulfonate (PFDS-Na) | 2806-15-7 | -- |
| 165 | | Potassium perfluorodecanesulfonate (PFDS-K) | 2806-16-8 | -- |
| 166 | | Ammonium perfluorodecanesulfonate (PFDS-$NH_4$) | 67906-42-7 | -- |
| 167 | | Perfluorodecane sulfonate (anion) | 126105-34-8 | -- |
| 168 | | Perfluorodecane sulfonic anhydride (PFDSA) | 51667-62-0 | -- |
| 169 | | Perfluorodecanesulphonyl fluoride (PFDS-F) | 307-51-7 | -- |
| 170 | | Perfluorodecanesulphonyl chloride (PFDS-Cl) | 32779-61-6 | -- |
| 171 | -- | 1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH) | 865-86-1 | 0.100 |
| 172 | -- | 1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA) | 17741-60-5 | 0.100 |
| 173 | -- | 1H,1H,2H,2H-Perfluorododecyl methacrylate (10:2 FTMA) | 2144-54-9 | 0.100 |
| 174 | -- | 1H,1H,2H,2H-perfluorotetradecan-1-ol (12:2 FTOH) | 39239-77-5 | 0.100 |
| 175 | 10:2 FTS, its salts | 1H,1H,2H,2H-Perfluorododecane sulfonic acid (10:2 FTS) | 120226-60-0 | 0.100 |
| 176 | | 1H,1H,2H,2H-Perfluorododecanesulfonic Acid Sodium (10:2 FTS-Na) | 108026-35-3 | -- |
| 177 | | 2-(Perfluorodecyl)ethane-1-sulfonyl chloride (10:2 FTS-Cl) | 27619-91-6 | -- |
| 178 | -- | 1,1,2,2-Tetrahydroperfluorododecyl iodide (10:2 FTI) | 2043-54-1 | 0.100 |
| 179 | -- | 1H,1H,2H,2H-Perfluorotetradecyl iodide (12:2 FTI) | 30046-31-2 | 0.100 |
| 180 | PFNS, its salts | Perfluoro nonane sulfonic acid (PFNS) | 68259-12-1 | 0.010 |
| 181 | | Sodium perfluoro-1-nonanesulfonate (PFNS-Na) | 98789-57-2 | -- |
| 182 | | ammonium nonadecafluorononanesulphonate (PFNS-$NH_4$) | 17202-41-4 | -- |
| 183 | | Potassium perfluorononanesulfonate (PFNS-K) | 29359-39-5 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 184 | PFUnDS, its salts | Perfluorononane sulfonate (anion) | 474511-07-4 | -- |
| 185 | | Perfluorononanesulfonyl fluoride (PFNS-F) | 68259-06-3 | -- |
| 186 | | Perfluoroundecane sulfonic acid (PFUnDS) | 749786-16-1 | 0.010 |
| 187 | | Perfluoroundecanesulfonate (anion) | 441296-91-9 | -- |
| 188 | | Perfluorododecanesulfonic acid (PFDoDS) | 79780-39-5 | 0.010 |
| 189 | | Sodium perfluoro-1-dodecanesulfonate (PFDoDS-Na) | 1260224-54-1 | -- |
| 190 | | Potassium perf(Pota0.5 m 233.75 0.5 l 233.75 23.4 | 79780-39-5 | 0.010 |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| | | 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (Calculated in terms of PFHxS) (PFHxS-$(NC_{10}H_{14})_3C_5H_4$) | | |
| 211 | | 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 | -- |
| 212 | | 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 | -- |
| 213 | | 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 | -- |
| 214 | | 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 | -- |
| 215 | | 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 | -- |
| 216 | | 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 | -- |
| 217 | | 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 | -- |
| 218 | | 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 | -- |
| 219 | | 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 | -- |
| 220 | | 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 | -- |
| 221 | | 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 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 222 | | 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($C_7H_7$)$_2$$C_6H_5$) | 341548-85-4 | -- |
| 223 | | 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, scandium(3+) salt (3:1)(PFHxS-Sc) | 350836-93-0 | -- |
| 224 | | 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, neodymium(3+) salt (3:1)(PFHxS-Nd) | 41184-65-0 | -- |
| 225 | | 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, yttrium(3+) salt (3:1)(PFHxS-Y) | 41242-12-0 | -- |
| 226 | | Sulfonium, (thiodi-4,1-phenylene)bis[diphenyl-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:2)( PFHxS-$S_3$($C_6H_5$)$_4$($C_6H_4$)$_2$) | 421555-73-9 | -- |
| 227 | | Iodonium, bis[4-(1,1-dimethylpropyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic(PFHxS-I ($C_6H_4$)$_2$($C_5H_{11}$) | 421555-74-0 | -- |
| 228 | | Perfluorohexanesulphonyl fluoride (PFHxS-F) | 423-50-7 | -- |
| 229 | | Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)(PFHxS-S($C_6H_4$)$_3$($C_4H_9$)$_3$) | 425670-70-8 | -- |
| 230 | | 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, zinc salt (PFHxS-Zn) | 70136-72-0 | -- |
| 231 | | Tridecafluorohexanesulphonic acid, compound with 2,2'-iminodiethanol (1:1)(PFHxS-NH($C_2H_5O$)$_2$) | 70225-16-0 | -- |
| 232 | | 1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with N,N-diethylethanamine (1:1)(PFHxS-N($C_2H_5$)$_3$) | 72033-41-1 | -- |
| 233 | | Iodonium, bis[(1,1-dimethylethyl)phenyl]-, salt with 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonic acid (1:1) (9CI) (PFHxS-I($C_6H_4$)$_2$($C_4H_9$)$_2$) | 866621-50-3 | -- |
| 234 | | Sulfonium, (4-methylphenyl)diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1)( PFHxS-S($C_6H_5$)$_2$$C_7H_7$) | 910606-39-2 | -- |
| 235 | | Sulfonium, [4-[(2-methyl-1-oxo-2-propen-1-yl)oxy]phenyl]diphenyl-, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) ( PFHxS-S($C_6H_5$)$_2$$C_{10}H_9O_2$) | 911027-68-4 | -- |
| 236 | | 1-Hexanesulfonic acid, 9,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, cesium salt (1:1) (PFHxS-Cs) | 92011-17-1 | -- |
| 237 | | Dibenzo[k,n][1,4,7,10,13]tetraoxathiacyclopentadecinium, 19-[4-(1,1-dimethylethyl)phenyl]-6,7,9,10,12,13-hexahydro-, | 928049-42-7 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| | | 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-1-hexanesulfonate (1:1) (PFHxS-$SC_{28}H_{31}O_4$) | | |
| 238 | | Perfluorohexylsulfonyl chloride (PFHxS-Cl) | 55591-23-6 | -- |
| 239 | | 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 | -- |
| 240 | | Perfluorohexane sulfonate (anion) | 108427-53-8 | -- |
| 241 | | Tetrabutylphosphonium perfluorohexane sulfonate (PFHxS-P ($C_4H_9)_4$)) | 2310194-12-6 | -- |
| 242 | -- | N-Methylperfluoro-1-hexanesulfonamide (N-Me-PFHxSA) | 68259-15-4 | 0.010 |
| 243 | -- | Perfluorohexane sulfonamide (PFHxSA) | 41997-13-1 | 0.010 |
| 244 | -- | N-[3-(dimethylamino)propyl] tridecafluorohexanesulphonamide (N-AP-FHxSA) | 50598-28-2 | 0.010 |
| 245 | -- | 2-[methyl[(tridecafluorohexyl) sulphonyl]amino]ethyl acrylate)) (N-MeFHSEA) | 67584-57-0 | 0.200 |
| 246 | -- | 2-Propenoic acid, 2-methyl-, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester | 67584-61-6 | 0.200 |
| 247 | -- | 2-Propenoic acid, 2-methyl-, 2- | | |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 257 | | Silver perfluorohexanoate (PFHxA-Ag) | 336-02-7 | -- |
| 258 | | Lithium perfluorohexanoate (PFHxA-Li) | 90430-61-8 | -- |
| 259 | | Perfluorohexanoic anhydride | 308-13-4 | -- |
| 260 | | Hexanoic acid, undecafluoro-, compd. with piperazine (2:1) (8CI,9CI) | 423-47-2 | -- |
| 261 | | Perfluorohexanoate (anion) | 92612-52-7 | -- |
| 262 | | Perfluorohexanoyl chloride (PFHxA-Cl) | 335-53-5 | -- |
| 263 | | Perfluorohexanoyl bromide (PFHxA-Br) | 1404193-66-3 | -- |
| 264 | | Undecafluorohexanoic acid--hexan-1-amine (1/1) (PFHxA-$C_6H_{15}N$) | 565225-91-4 | -- |
| 265 | | 1-phenylpiperazine; 2,2,3,3,4,4,5,5,6,6,6-undecafluorohexanoic acid (PFHxA-$C_{10}H_{14}N_2$) | 985-60-4 | -- |
| 266 | -- | 1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH) | 647-42-7 | 0.100 |
| 267 | -- | 1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH) | 2043-47-2 | 0.400 |
| 268 | -- | 1H,1H,2H,2H-Perfluorooctylacrylate (6:2 FTA) | 17527-29-6 | 0.200 |
| 269 | | 1H,1H,2H,2H-Perfluorooctanesulphonic acid (6:2 FTS) | 27619-97-2 | 0.010 |
| 270 | | Sodium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-Na) | 27619-94-9 | -- |
| 271 | | Potassium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-K) | 59587-38-1 | -- |
| 272 | 6:2 FTS, its salts | Ammonium 1H,1H,2H,2H-Perfluorooctanesulfonate (6:2 FTS-$NH_4$) | 59587-39-2 | -- |
| 273 | | 1-Octanesulfonic acid, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, barium salt (2:1) (6:2 FTS-Ba) | 1807944-82-6 | -- |
| 274 | | 2-(Perfluorohexyl)ethane-1-sulfonate (6:2FTS(anion)) | 425670-75-3 | -- |
| 275 | | 2-(Perfluorohexyl)ethanesulfonyl chloride (6:2 FTS-Cl) | 27619-89-2 | -- |
| 276 | | 2-(Perfluorohexyl)ethanesulfonyl fluoride (6:2 FTS-F) | -- | -- |
| 277 | -- | 1H,1H,2H,2H-Perfluorooctyltriethoxysilane (6:2 FTSi($OC_2H_5$)$_3$) | 51851-37-7 | 0.500 |
| 278 | -- | 1H,1H,2H,2H-Perfluorooctyltrichlorosilane | 78560-45-9 | 0.200 |
| 279 | -- | 1H,1H,2H,2H-Perfluorooctyltrimethoxysilane (6:2 FTSi($OCH_3$)$_3$) | 85857-16-5 | |
| 280 | -- | 1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluoro-6-iodohexane (PFHx-I) | 355-43-1 | 0.200 |
| 281 | -- | 1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluoro-8-iodononane | 38550-34-4 | 0.200 |
| 282 | -- | N-[3-(dimethylamino)propyl]-3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctanesulphonamide n-oxide | 80475-32-7 | 0.100 |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 312 | | 4-Chlorobenzenediazonium perfluorobutanoate perfluorobutanoic acid (1:1:1) (PFBA-$C_6H_4ClF_6N_2P$) | -- | -- |
| 313 | | Heptafluorobutanoic acid-1-phenylpiperazine (1:1) (PFBA-$C_{10}H_{14}N_2$) | 2263-11-8 | -- |
| 314 | | Perfluorobutanoic anhydride (PFBAA) | 336-59-4 | -- |
| 315 | | Heptafluorobutanoic acid calcium salt (PFBA-Ca) | 2366-98-5 | -- |
| 316 | | Rhodium(II) perfluorobutyrate dimer (PFBA-Rh) | 73755-28-9 | -- |
| 317 | | Perfluorobutyryl chloride (PFBA-Cl) | 375-16-6 | -- |
| 318 | | Perfluorobutanoyl fluoride (PFBA-F) | 335-42-2 | -- |
| 319 | | Heptafluorobutanoyl Bromide (PFBA-Br) | 375-13-3 | -- |
| 320 | | 4-Chlorobenzenediazonium perfluorobutanoate perfluorobutanoic acid (1:1:1) | -- | -- |
| 321 | | N5-(5-Hydroxy-4,6-dimethylpyrimidin-2-yl)-L-ornithine- heptafluorobutanoic acid (1/2) | 936233-19-1 | -- |
| 322 | | Perfluorobutanesulfonic acid (PFBS) | 375-73-5 | 0.010 |
| 323 | | Perfluorobutanesulfonate K-salt (PFBS-K) | 29420-49-3 | -- |
| 324 | | Perfluorobutanesulfonic Acid Hydrate (PFBS-$H_2O$) | 59933-66-3 | -- |
| 325 | | lithium perfluorobutanesulfonate (PFBS-Li) | 131651-65-5 | -- |
| 326 | | Triphenyl Sulfonium Perfluorobutane Sulfonate (TPS-PFBS) | 144317-44-2 | -- |
| 327 | | Dimethyl(phenyl)sulfanium perfluorobutanesulfonate (PFBS-$S(CH_3)_2C_6H_5$) | 220133-51-7 | -- |
| 328 | | Tetrabutyl-phosphonium nonafluoro-butane-1-sulfonate (PFBS-$P(C_4H_9)_4$) | 220689-12-3 | -- |
| 329 | | N,N,N,-triethylethanaminium 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulfonate(PFBS-$N(C_2H_5)_4$) | 25628-08-4 | -- |
| 330 | | Nonafluorobutanesulfonyl fluoride (PFBS-F) | 375-72-4 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 338 | | 1,1,2,2,3,3,4,4,4-nonafluorobutane-1-sulphonic acid, compound with 2,2'-iminodiethanol (1:1) (PFBS-NH($C_2H_5O)_2$) | 70225-18-2 | -- |
| 339 | | Tetrabutylammonium nonafluorobutanesulfonate ((PFBS-N($C_4H_9)_4$)) | 108427-52-7 | -- |
| 340 | | Diphenyliodanium nonafluorobutane-1-sulfonate((PFBS-I($C_6H_5)_2$)) | 194999-82-1 | -- |
| 341 | | Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 241806-75-7 | -- |
| 342 | | Sulfonium, (4-cyclohexylphenyl)diphenyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 425670-64-0 | -- |
| 343 | | Thiophenium, tetrahydro-1-(1-methyl-1H-indol-3-yl)-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 867373-18-0 | -- |
| 344 | | Pyridinium, 1-ethyl-3-methyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 1015420-87-7 | -- |
| 345 | | 1H-Imidazolium, 1-methyl-3-octyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 905972-83-0 | -- |
| 346 | | 1H-Imidazolium, 3-hexyl-1-methyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 1001557-05-6 | -- |
| 347 | | 2-Propanaminium, N,N-dimethyl-N-(1-methylethyl)-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 374571-81-0 | -- |
| 348 | | Sulfonium, [4-[2-(1,1-dimethylethoxy)-2-oxoethoxy]phenyl]diphenyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 857285-80-4 | -- |
| 349 | | 1-Butanaminium, N,N-dibutyl-N-methyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 124472-66-8 | -- |
| 350 | | 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, zinc salt (2:1) (PFBS-Zn) | 502457-69-4 | -- |
| 351 | | 1-Pentanaminium, N,N,N-tripropyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonate (1:1) | 56773-55-8 | -- |
| 352 | | Perfluorobutanesulfonic acid tetramethylammonium salt (PFBS-N($CH_3)_4$) | 25628-17-5 | -- |
| 353 | | 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, 1,1'-anhydride | 36913-91-4 | |
| 354 | | Perfluorobutane sulfonate (anion) | 45187-15-3 | -- |
| 355 | | 1-(4-butoxy-1-naphthyl)tetrahydrothiophenium nonafluorobutane-1-sulfonate | EC: 468-770-4 | -- |
| 356 | | Triethylammonium perfluorobutane sulfonate | 182059-38-7 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 357 | | N-(2-Hydroxyethyl)-N,N-dimethyl-1-octanaminium perfluoro-1-butanesulfonate (1:1) | 334529-55-4 | -- |
| 358 | | 1-Hexadecylpyridinium perfluoro-1-butanesulfonate | 334529-62-3 | -- |
| 359 | | 1-Butylpyridinium perfluoro-1-butanesulfonate | 334529-64-5 | -- |
| 360 | | N-Methyl-N,N-dioctyl-1-octanaminium perfluoro-1-butanesulfonate | 495417-51-1 | -- |
| 361 | | Sulfonium, tris(4-methylphenyl)-, salt with perfluoro-1-butanesulfonic acid (1:1) | 722538-68-3 | -- |
| 362 | | N-Ethyl-N-methyl-N-propylammonium perfluorobutanesulfonate | 1186599-90-5 | -- |
| 363 | | [4-(2-Methylpropyl)phenyl]-diphenylsulfanium;1,1,2,2,3,3,4, 4,4-nonafluorobutane-1-sulfonate | 1375211-36-1 | -- |
| 364 | | Diphenyl 4-tertbutylphenylsulfonium nonafluorobutanesulfonate | 258872-05-8 | -- |
| 365 | | Diphenyl(4-methylphenyl)sulfonium nonafluorobutanesulfonate | 284474-28-8 | -- |
| 366 | | Trimethylsilyl nonafluorobutanesulfonate | 68734-62-3 | -- |
| 367 | | Perfluoropentane Acid (PFPeA) | 2706-90-3 | 0.010 |
| 368 | | Sodium perfluoropentanoate(PFPeA-Na) | 2706-89-0 | -- |
| 369 | | Potassium perfluoropentanoate (PFPeA-K) | 336-23-2 | -- |
| 370 | | Lithium perfluoropentanoate (PFPeA-Li) | 198482-22-3 | -- |
| 371 | | Silver perfluoropentanoate (PFPeA-Ag) | 2795-30-4 | -- |
| 372 | | Ammonium perfluoropentanoate(PFPeA-$NH_4$ ) | 68259-11-0 | -- |
| 373 | | Perfluoropentanoate (anion) | 45167-47-3 | -- |
| 374 | | Nonafluoropentanoic acid -1-benzylthiourea (1:1) (PFPeA-C | | |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 385 | | 7H-Perfluoroheptanoyl chloride (HPFHpA-Cl) | 41405-35-0 | -- |
| 386 | | 7H-Perfluoroheptanoyl fluoride (HPFHpA-F) | 5927-65-1 | -- |
| 387 | | 7H-Perfluoroheptanoyl bromide (HPFHpA-Br) | 141893-84-7 | -- |
| 388 | | | | |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 416 | 4:2 FTS, its salts | Propanoic acid, 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)-, (-)- | 75579-40-7 | -- |
| 417 | | Sodium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate | 67963-75-1 | -- |
| 418 | | Perfluoro(2-propoxypropanoate) | 122499-17-6 | -- |
| 419 | | 2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoic acid--N-propylpropan-1-amine (1/1) | 165951-17-7 | -- |
| 420 | | Triethylaminium perfluoro-2-propoxypropanoate | 165951-18-8 | -- |
| 421 | | 4-[(6-Methoxy-3-pyridazinyl)sulfamoyl]anilinium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate | 298703-31-8 | -- |
| 422 | | 2,3,6-Triiodobenzoic acid (1-methyl-3-piperidinyl)methyl ester compd. with perfluoro-2-(propoxy)propanoate (1:1) (HFPO-$C_{14}H_{16}I_3NO_2$) | 2412106-69-3 | -- |
| 423 | | 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS) | 757124-72-4 | 0.010 |
| 424 | | 1H,1H,2H,2H-perfluorohexane sulfonate acid sodium salt | 27619-93-8 | -- |
| 425 | | 4:2 Fluorotelomer sulfonate (4:2 FTS(anion)) | 414911-30-1 | -- |
| 426 | | Perfluoropentane sulfonic acid (PFPeS) | 2706-91-4 | 0.010 |
| 427 | | Sodium perfluoro-1-pentanesulfonate (PFPeS-Na) | 630402-22-1 | -- |
| 428 | | Potassium perfluoropentane-1-sulphonate (PFPeS-K) | 3872-25-1 | -- |
| 429 | | Ammonium perfluoropentanesulfonate (PFPeS-$NH_4$) | 68259-09-6 | -- |
| 430 | | Bis(2-hydroxyethyl) ammonium 1,1,2,2,3,3,4,4,5,5,5-undecafluoropentane-1-sulphonate | 70225-17-1 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 442 | PFODA, its salts | Perfluorooctadecanoate anion (PFODA(anion)) | 798556-82-8 | -- |
| 443 | | Potassium 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentatriacontafluorooctadecanoate | -- | -- |
| 444 | | Sodium 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentatriacontafluorooctadecanoate | -- | -- |
| 445 | | Lithium 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentatriacontafluorooctadecanoate | -- | -- |
| 446 | -- | | | |

**Test Report** **No.:** SHAEC26027481007 **Date:**

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 536 | | 1-Methyl-1-propylpyrrolidinium Bis(trifluoromethanesulfonyl)imide | 223437-05-6 | -- |
| 537 | | 1,1,1-trifluoro-N-trifluoromethanesulfonyl-N-((N-trifluoromethanesulfonyltrifluoromethanesulfonamido)calcio)methanesulfonamide ($(TFSI)_2$-Ca) | 165324-09-4 | -- |
| 538 | | Choline bis(trifluoromethylsulfonyl)imide | 827027-25-8 | -- |
| 539 | | 1-Dodecyl-3-methylimidazolium Bis(trifluoromethanesulfonyl)imide | 404001-48-5 | -- |
| 540 | | 1-Ethyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide | 223436-99-5 | -- |
| 541 | | Diethylmethylsulfonium bis(trifluoromethylsulfonyl)imide | 792188-85-3 | -- |
| 542 | | Bis(trifluoromethylsulfonyl)azanide;mercury(2+) ($(TFSI)_2$-Hg) | 104715-41-5 | -- |
| 543 | | Cerium(III) Bis(trifluoromethanesulfonyl)imide (TFSI-Ce) | 1046099-39-1 | -- |
| 544 | | Cadmium bis{bis[(trifluoromethyl)sulfonyl]azanide} (TFSI-Cd) | 1263295-73-3 | -- |
| 545 | | Bis(trifluoromethanesulfonyl)imide Lanthanum(III) Salt (TFSI-La) | 168106-26-1 | -- |
| 546 | | Scandium(III) bis(trifluoromethylsulfonyl)imide (TFSI-Sc) | 176726-07-1 | -- |
| 547 | | Yttrium(III) bis(trifluoromethanesulfonyl)imide (TFSI-Y) | 189114-86-1 | -- |
| 548 | | Vanadium tris(bis(trifluoromethanesulfon)imide) (TFSI-V) | 207861-54-9 | -- |
| 549 | | Iron(II) bis(trifluoromethanesulfonyl)imide (TFSI-Fe) | 207861-57-2 | -- |
| 550 | | Tin(II) bis(trifluoromethylsulfonyl)imide (TFSI-Sn) | 460096-08-6 | -- |
| 551 | | Cesium bis(trifluoromethanesulfonyl)imide (TFSI-Cs) | 91742-16-4 | -- |
| 552 | | Sodium bis(trifluoromethanesulfonyl)imide (TFSI-Na) | 91742-21-1 | -- |
| 553 | 10:2 monoPAP, its salts | 10:2 Fluorotelomer phosphate monoester (10:2 monoPAP) | 57678-05-4 | 0.100 |
| 554 | | 10:2 Fluorotelomer diammonium dihydrogen phosphate | 93857-45-5 | -- |
| 555 | | 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10, 11,11,12.12,12-Henicosafluorododecyl dihydrogen phosphate cyclohexylamine | 2514858-66-1 | -- |
| 556 | -- | N-(4,4,5,5,6,6,7,7,8,8,9,9,9-tridecafluorononyl)iodoacetamide | 852527-50-5 | 0.010 |
| 557 | TFMS, its salts | Trifluoromethane sulfonic acid (TFMS) | 1493-13-6 | 0.010 |
| 558 | | Trifluoromethane sulfonic acid Sodium salt (TFMS-Na) | 2926-30-9 | -- |
| 559 | | Silver trifluoromethanesulfonate (TFMS-Ag) | 2923-28-6 | -- |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 560 | | Zinc trifluoromethanesulfonate (TFMS-Zn) | 54010-75-2 | -- |
| 561 | | Scandium trifluoromethanesulfonate (TFMS-Sc) | 144026-79-9 | -- |
| 562 | | Trifluoromethanesulfonic anhydride | 358-23-6 | -- |
| 563 | | Lithium trifluoromethanesulfonate (TFMS-Li) | 33454-82-9 | -- |
| 564 | | Copper(II) trifluoromethanesulfonate (TFMS-Cu) | 34946-82-2 | -- |
| 565 | | Barium trifluoromethanesulfonate (TFMS-Ba) | 2794-60-7 | -- |
| 566 | | Cerium(IV) trifluoromethanesulfonate (TFMS-Ce) | 107792-63-2 | -- |
| 567 | | Magnesium trifluoromethanesulfonate (TFMS-Mg) | 60871-83-2 | -- |
| 568 | | Potassium trifluoromethanesulfonate (TFMS-K) | 2926-27-4 | -- |
| 569 | | Nickel(II) Trifluoromethanesulfonate (TFMS-Ni) | 60871-84-3 | -- |
| 570 | | Tin(II) trifluoromethanesulfonate (TFMS-Sn) | 62086-04-8 | -- |
| 571 | | Yttrium(III) trifluoromethanesulfonate (TFMS-Y) | 52093-30-8 | -- |
| 572 | | Iron(III) trifluoromethanesulfonate (TFMS-Fe) | 63295-48-7 | -- |
| 573 | | Cerium(III) Trifluoromethanesulfonate (TFMS-Ce) | 76089-77-5 | -- |
| 574 | | Tetrabutylammonium trifluoromethanesulfonate | 35895-70-6 | -- |
| 575 | | Methyltrioctylammonium trifluoromethanesulfonate | 121107-18-4 | -- |
| 576 | | Imidazole trifluoromethanesulfonate | 29727-06-8 | -- |
| 577 | | Trifluoroacetyl Trifluoromethanesulfonate | 68602-57-3 | -- |
| 578 | | Lanthanum(III) trifluoromethanesulfonate(TFMS-La) | 52093-26-2 | -- |
| 579 | | Indium(III) trifluoromethanesulfonate(TFMS-In) | 128008-30-0 | -- |
| 580 | | Samarium(III) trifluoromethanesulfonate(TFMS-Sm) | 52093-28-4 | -- |
| 581 | | Ytterbium(III) trifluoromethanesulfonate(TFMS-Yb) | 54761-04-5 | -- |
| 582 | | Thulium(III) trifluoromethanesulfonate(TFMS-Tm) | 141478-68-4 | -- |
| 583 | | Tetraethylammonium trifluoromethanesulfonate | 35895-69-3 | -- |
| 584 | | 1-Fluoro-3,5-dichloropyridinium triflate | | |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 592 | | Ruthenium(3+), (OC-6-22)-, salt with trifluoromethanesulfonic acid (1:3) | 74468-24-9 | -- |
| 593 | | O-Pivaloylhydroxylamine trifluoromethanesulfonate | 1293990-73-4 | -- |
| 594 | | Trifluoromethanesulfonyl chloride | 421-83-0 | -- |
| 595 | | (2-Pyridylmethyl)sulfonyl chloride triflate | 882564-09-2 | -- |
| 596 | | Trifluoromethanesulfonyl bromide | 15458-53-4 | -- |
| 597 | | Mercury(II) trifluoromethanesulfonate(TFMS-Hg) | 49540-00-3 | -- |
| 598 | | Dysprosium(III) tris(trifluoromethanesulfonate)(TFMS-Dy) | 139177-62-1 | -- |
| 599 | | Manganese bis(trifluoromethanesulfonate)(TFMS-Mn) | 55120-76-8 | -- |
| 600 | | Pentaammine(trifluoromethanesulfonato)osmium(II) triflate | 83781-30-0 | -- |
| 601 | | Lutetium(III) trifluoromethanesulfonate(TFMS-Lu) | 126857-69-0 | -- |
| 602 | | Terbium(III) trifluoromethanesulfonate(TFMS-Tb) | 148980-31-8 | -- |
| 603 | | Neodymium(III) trifluoromethanesulfonate(TFMS-Nd) | 34622-08-7 | -- |
| 604 | | Ammonium trifluoromethanesulfonate(TFMS-$NH_4$) | 38542-94-8 | -- |
| 605 | | Holmium(III) trifluoromethanesulfonate(TFMS-Ho) | 139177-63-2 | -- |
| 606 | | Trifluoromethanesulfonate | 37181-39-8 | -- |
| 607 | | Praseodymium(III) trifluoromethanesulfonate(TFMS-Pr) | 52093-27-3 | -- |
| 608 | | Bismuth(III) trifluoromethanesulfonate(TFMS-Bi) | 88189-03-1 | -- |
| 609 | | Europium(III) trifluoromethanesulfonate(TFMS-Eu) | 52093-25-1 | -- |
| 610 | | Erbium(III) trifluoromethanesulfonate(TFMS-Er) | 139177-64-3 | -- |
| 611 | | Gallium(III) trifluoromethanesulfonate(TFMS-Ga) | 74974-60-0 | -- |
| 612 | | N,N,N-Triethyl-2,2,2-trifluoroethan-1-aminium trifluoromethanesulfonate | 380230-73-9 | -- |
| 613 | | Methanesulfonic acid, trifluoro-, calcium salt(TFMS-Ca) | 55120-75-7 | -- |
| 614 | | Thallium(1+) trifluoromethanesulfonate(TFMS-Tl) | 73491-36-8 | -- |
| 615 | | Hafnium(IV) Trifluoromethanesulfonate(TFMS-Hf) | 161337-67-3 | -- |
| 616 | | 1-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-Pentadecafluorooctyl)pyridinium trifluoromethanesulfonate | 25061-59-0 | -- |
| 617 | | Tetrapropylammonium trifluoromethanesulphonate (TFMS- $N(C_3H_7)_4$) | 35925-48-5 | -- |
| 618 | | (Heptafluoropropyl)(phenyl)iodanium trifluoromethanesulfonate | 77758-79thane | |

| No. | Group Name | Substance Name |
|---|---|---|

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 650 | | Dimethyl[(trifluoroacetyl)oxy]sulfanium trifluoroacetate | 57738-66-6 | -- |
| 651 | | Aluminium tris(trifluoroacetate)(TFA-Al) | 36554-89-9 | -- |
| 652 | | Barium bis(trifluoroacetate)(TFA-Ba) | 60884-92-6 | -- |
| 653 | | Erbium tris(trifluoroacetate)(TFA-Er) | 70236-99-6 | -- |
| 654 | | Indium trifluoroacetate(TFA-In) | 36554-90-2 | -- |
| 655 | | Lanthanum tris(trifluoroacetate)(TFA-La) | 70236-92-9 | -- |
| 656 | | Nickel(2+) trifluoroacetate(TFA-Ni) | 16083-14-0 | -- |
| 657 | | Lead(II) trifluoroacetate(TFA-Pb) | 4146-73-0 | -- |
| 658 | | Acetic acid, trifluoro-, rhodium(2+) salt(TFA-Rh) | 72654-51-4 | -- |
| 659 | | Thulium tris(trifluoroacetate)(TFA-Tm) | 70237-00-2 | -- |
| 660 | | Ytterbium(3+) tris(trifluoroacetate)(TFA-Yb) | 87863-62-5 | -- |
| 661 | | Zinc bis(trifluoroacetate)(TFA-Zn) | 21907-47-1 | -- |
| 662 | | Ruthenium(II) 2,2,2-trifluoroacetate(TFA-Ru) | 61612-84-8 | -- |
| 663 | | Magnesium 2,2,2-trifluoroacetate(TFA-Mg) | 123333-72-2 | -- |
| 664 | | Copper(2+) trifluoroacetate(TFA-Cu) | 123333-88-0 | -- |
| 665 | | Methyltrioctylammonium trifluoroacetate | 121107-16-2 | -- |
| 666 | | Chromium(3+) tris(trifluoroacetate)(TFA-Cr) | 16712-29-1 | -- |
| 667 | | Tetraethylammonium trifluoroacetate(TFA-$N(C_2H_5)_4$) | 30093-29-9 | -- |
| 668 | | Tetrabutylammonium trifluoroacetate(TFA-$N(C_4H_9)_4$) | 39481-22-6 | -- |
| 669 | | Europium(3+) trifluoroacetate-water (1/3/3)(TFA-$Eu.H_2O$) | 94079-71-7 | -- |
| 670 | | Bis(pentafluoroethylsulfonyl)imide | 152894-10-5 | 0.020 |
| 671 | | Lithium Bis(pentafluoroethanesulfonyl)imide | 132843-44-8 | -- |
| 672 | | Bis(perfluoroethylsulfonyl)imide anion | 129318-46-3 | -- |
| 673 | BETI, its salts | Sodium bis((perfluoroethyl)sulfonyl)amide | 152894-04-7 | -- |
| 674 | | Potassium bis((perfluoroethyl)sulfonyl)amide | 221203-22-1 | -- |
| 675 | | 1-Ethyl-3-methylimidazolium bis(perfluoroethylsulfonyl)imide | 216299-76-2 | -- |
| 676 | -- | Perfluoro-2-ethoxypropanoic acid(PEPA) | 267239-61-2 | 0.010 |
| 677 | | Perfluorodecylphosphonic acid (PFDPA) | 52299-26-0 | 0.010 |
| 678 | | Perfluorodecylphosphonic Acid 4-Methylbenzamine | -- | -- |
| 679 | | | | |

| No. | Group Name | Substance Name | CAS No. | MDL (mg/kg) |
|---|---|---|---|---|
| 683 | -- | 3-(Perfluorobutyl)propanoic acid | 80705-13-1 | 0.010 |
| 684 | -- | Perfluoro-3,6,9-trioxaundecane-1,11-dioic acid | 55621-18-6 | 0.020 |
| 685 | -- | Perfluorononanedioic acid | 23453-64-7 | 0.020 |
| 686 | -- | Perfluorooctanedioic acid | 678-45-5 | 0.020 |
| 687 | -- | Perfluamine | 338-83-0 | 10.000 |
| 688 | HFAC, its salts | Hexafluoroacetylacetone (HFAC) | 1522-22-1 | 0.010 |
| 689 | | Strontium hexafluoroacetylacetonate (HFAC-Sr) | 121012-89-3 | -- |
| 690 | | Calcium hexafluoroacetylacetonate (HFAC-Ca) | 121012-90-6 | -- |
| 691 | | Bismuth(III) hexafluoroacetylacetonate (HFAC-Bi) | 141364-06-9 | -- |
| 692 | | Nickel(2+) bis(1,1,1,5,5,5-hexafluoro-2,4-dioxopentan-3-ide) (HFAC-Ni) | 14949-69-0 | -- |
| 693 | | Copper(II) hexafluoroacetylacetonate hydrate (HFAC- $Cu{\cdot}H_2O$) | 155640-85-0 | -- |
| 694 | | Thorium hexafluoroacetylacetonate (HFAC-Th) | 18865-75-3 | -- |
| 695 | | Yttrium hexafluoroacetylacetonate (HFAC-Y) | 18911-76-7 | -- |
| 696 | | Erbium(III) hexafluoroacetylacetonate hydrate (HFAC- $Er{\cdot}H_2O$) | 18923-92-7 | -- |
| 697 | | Scandium(III) hexafluoroacetylacetonate (HFAC-Sc) | 18990-42-6 | -- |
| 698 | | Cobalt(2+) bis[(2Z)-1,1,1,5,5,5-hexafluoro-4-oxo-2-penten- 2-olate] (HFAC-Co) | 19648-83-0 | -- |
| 699 | | Magnesium bis(1,1,1,5,5,5-hexafluoro-4-oxo-2-penten-2- olate) (HFAC-Mg) | 19648-85-2 | -- |
| 700 | | Manganese(2+) bis[(2Z)-1,1,1,5,5,5-hexafluoro-4-oxo-2- penten-2-olate] (HFAC-Mn) | 19648-86-3 | -- |
| 701 | | Sodium hexafluoroacetylacetonate (HFAC-Na) | 22466-49-5 | -- |
| 702 | | Caesium (2Z)-1,1,1,5,5,5-hexafluoro-4-oxo-2-penten-2- olate (HFAC-Cs) | 22518-56-5 | -- |
| 703 | | Barium hexafluoroacetylacetonate (HFAC-Ba) | 314071-48-2 | -- |
| 704 | | Indium hexafluoropentanedionate (HFAC-In) | 34110-72-0 | -- |
| 705 | | Tin(II) hexafluoroacetylacetonate (HFAC-Sn) | 51319-99-4 | -- |
| 706 | | Palladium(II) hexafluoroacetylacetonate (HFAC-Pd) | 64916-48-9 | -- |
| 707 | -- | Perfluoro-N-methylmorpholine | 382-28-5 | 10.000 |
| 708 | -- | 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]diphenol (BPAF) | -- | 10.000 |
| 709 | PFTriODA, its salts | Perfluoro-(2,5,8-trimethyl-3,6,9-trioxadodecanoic) acid (PFTriODA) | 65294-16-8 | 0.010 |
| 710 | | Perfluoro-(2,5,8-trimethyl-3,6,9-trioxadodecanoic) acid potassium salt | 67963-77-3 | -- |
| 711 | | Propanoic acid, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[1,1,2,3,3,3-hexafluoro-2- | -- | -- |

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|---|---|
| 1H,1H,2H,2H-perfluorodecyl acetate (8:2 FTOAc) ^^ | 37858-04-1 |
| **10:2 FTOH, its possible source** | |
| 1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH) | 865-86-1 |
| 1H,1H,2H,2H-Perfluorododecyl methacrylate (10:2 FTMA) ^^ | 2144-54-9 |
| 1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA) ^^ | 17741-60-5 |
| 1H,1H,2H,2H-perfluorododecyl acetate (10:2 FTOAc) ^^ | 37858-05-2 |
| **6:2 FTOH, its possible source** | |
| 1H,1H,2H,2H-Perfluoro-1-octanol (6:2 FTOH) | 647-42-7 |
| 1H,1H,2H,2H-Perfluorooctyl methacrylate (6:2 FTMA) ^^ | 2144-53-8 |
| 1H,1H,2H,2H-Perfluorooctylacrylate (6:2 FTA) ^^ | 17527-29-6 |
| **MeFHxSE, its possible source** | |
| 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 |
| 2-Propenoic acid, 2-methyl-, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester ^^ | 67584-61-6 |
| 2-[methyl[(tridecafluorohexyl) sulphonyl]amino]ethyl acrylate)) (N-MeFHSEA) ^^ | 67584-57-0 |
| **Et-FHxSE, its possible source** | |
| N-Ethyl-1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-1-hexanesulfonamide (Et-FHxSE) | 34455-03-3 |
| 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 |
| **PFHpA, its possible source** | |
| Perfluoroheptane Acid (PFHpA) | 375-85-9 |
| Perfluoroheptanamide (PFHpA-$NH_2$) ^^ | 2358-22-7 |
| **PFBA, its possible source** | |
| Perfluorobutane Acid (PFBA) | 375-22-4 |
| Perfluorobutyramide (PFBA-$NH_2$) ^^ | 662-50-0 |
| **4:2 FTOH, its possible source** | |
| 1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH) | 2043-47-2 |
| 1H,1H,2H,2H-Perfluorohexyl methacrylate (4:2 FTMA) ^^ | 1799-84-4 |
| 1H,1H,2H,2H-Nonafluorohexyl acrylate (4:2 FTA) ^^ | 52591-27-2 |

(3) Compound is hydrolysed and releases related PFAS substances when extracted by methanol/sodium hyd[redacted]AS will be degraded to unknown compounds and/or cannot be [redacted]ed by extraction with methanol[redacted]lution, only extractable content can be detected and

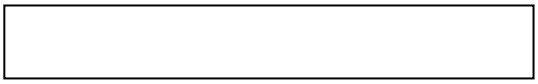
[redacted]C-MS or GC-MS/MS or HPLC-MS/MS ar[redacted] reflect only extractable PFAS.

(4) [redacted]sults of PFPeDA, PFHpDA, PFNDA, C[redacted]-CA, $C_{21}$ PFCA were semi-quantified using a

[redacted]

## ATTACHMENTS

### PFASs/ PFOS/PFOA Testing Flow Chart



**Sample photos:**



SGS authenticate the photo on original report only

*** End of Report ***