

TEST REPORT

<u>APPLICANT</u>	: Suzhou HCTech Technology Co., Ltd
<u>ADDRESS</u>	: 1402, No.1699, Zuchongzhi Road 215300 Kunshan Jiangsu, China
<u>SAMPLE DESCRIPTION</u>	: RFID UHF IC
<u>ITEM NO.</u>	: SWP-U1/U1M
<u>COUNTRY OF ORIGIN</u>	: Switzerland
<u>SAMPLE RECEIVED DATE</u>	: 01-Jun-2021
<u>TURN AROUND TIME</u>	: 01-Jun-2021 to 22-Jun-2021
<u>TEST REQUESTED</u>	: According to European Commission Regulation 1907/2006 (REACH Act), to test the SVHC content which have been listed in ECHA's SVHC candidate list till Jan 19, 2021. http://echa.europa.eu/chem_data/candidate_list_table_en.asp
<u>TEST METHOD</u>	: In-house method with reference to EPA 3052, EPA 6010C, IEC 62321, EPA 3550C, EPA 8270E, EPA 8321B, EN 14362, ISO 17353 and AfPS GS 2019:01 PAK.
<u>TEST RESULT</u>	: Refer to next page(s)
<u>CONCLUSION</u>	: According to the specified scope and analytical techniques, concentrations of the substances are less than 0.1% in selected sample.

The following test item(s) was, were performed on selected sample(s) and, or component(s) confirmed by applicant

Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to info.hz@eurofins.com and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to chinacomplaint@eurofins.com and referring to this report number.

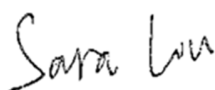
Remark :

- (1) The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA:
 - (A) http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp
 - (B) http://echa.europa.eu/consultations/authorisation/svhc/svhc_cons_en.asp
 - (C) http://echa.europa.eu/chem_data/reg_int_tables/reg_int_curr_int_en.asp#current_svhcThese lists are under evaluation by ECHA and may subject to change in the future.
- (2) In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).
- (3) From 28 October 2008, EU & EEA suppliers of articles which contain substances on the Candidate List in a concentration above 0.1% (w/w) must provide sufficient information, available to them, to their customers and on request to a consumer within 45 days of the receipt of this request. This information must ensure safe use of the article and, as a minimum, include the name of the substance.
- (4) If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

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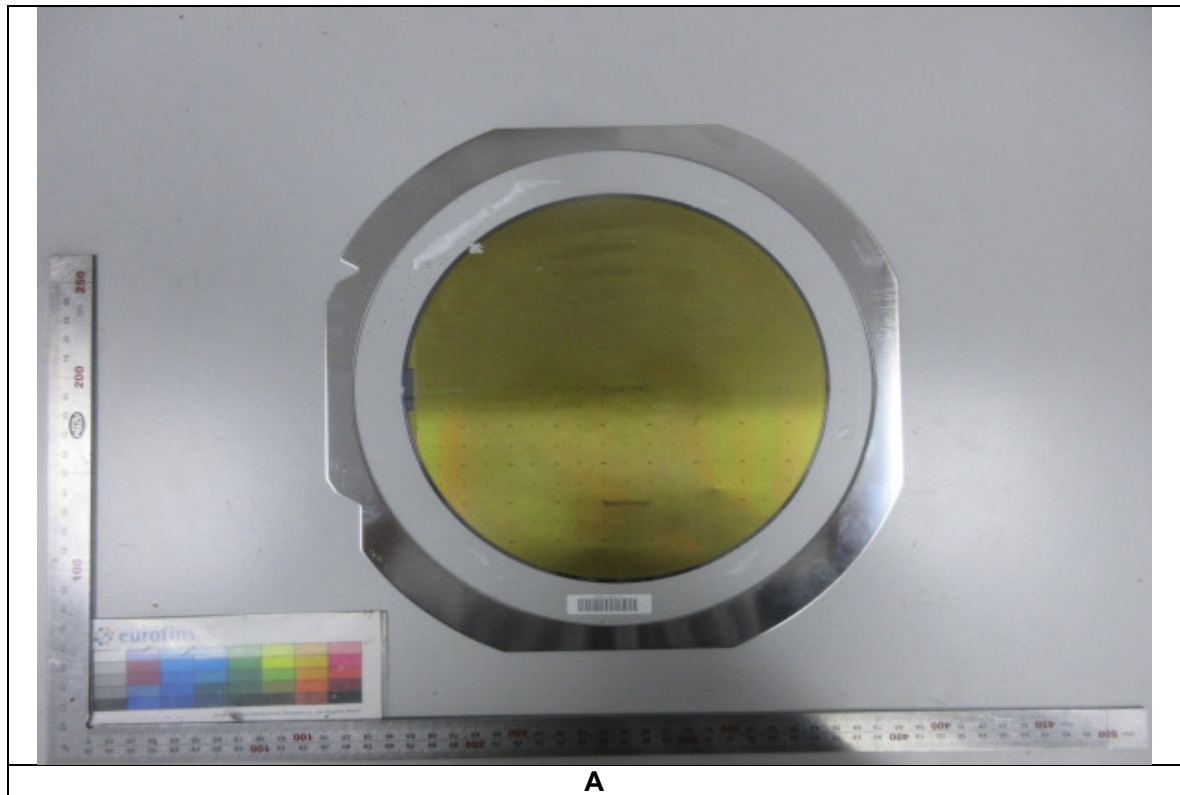
***** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) *****

Signed for and on behalf of
Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch



Sara Liu
Lab Manager

SAMPLE PHOTO(S)



EFHZ21060079-CG-02

TO BE CONTINUED

COMPONENT LIST

Group	Component No.	Component	Sample No.
Group A	1	Clear plastic film with gold coating	Non- metal 1

TO BE CONTINUED

TEST RESULT

No.	Substance Name	CAS No.	MDL (%)	Concentration (%)
				<u>Group A</u>
-	All tested SVHC	-	0.01	ND

Remark

- 1) ND = not detected, less than MDL
- 2) MDL= Method Detection Limit;
- 3) NA = The submitted sample was found to contain significant amount of specific element(s) of SVHC. Upon further information provided from client, the possibility that the element(s) content originate from SVHC is very unlikely, even though their presence cannot be excluded entirely. It may be assumed that the detected element(s) have a non-SVHC source.
- 4) Tests are performed in mixed components.
- 5) The table above only shows detected SVHC, and SVHC that below MDL are not reported. Please refer to Appendix for the full list of tested SVHC.
- 6) The results represent the worst case scenario of SVHC concentration in the tested components, which are calculated with the number of components in the composition test and the determined concentration. Confirmation test of individual component is recommended in case the threshold 0.1% is exceeded.
- 7) The test results are based on the calculation of selected element(s) / marker(s) and to the worst-case scenarios. Further confirmation and quantitative analysis are recommended to determine the SVHC sources.
- 8) * The substances are tested in terms of its respective elements (e.g. Co, As, Pb, Cd, Cr(VI) and B) and calculated based on the assumption of worst case scenarios.
- 9) ** Concentration of bis(tributyltin)oxide, TBTO is reported as tributyltin, TBT. The result is a screening test of TBTO and can cover TBTO and other salts under current technologies. Further investigation is needed to have the exact amount of TBTO; Concentration of Dibutylbis(pentane-2,4-dionato-O,O')tin is reported as Dibutyltin, DBT. The result is a screening test of Dibutylbis(pentane-2,4-dionato-O,O')tin and can cover Dibutylbis(pentane-2,4-dionato-O,O')tin and other salts under current technologies. Further investigation is needed to have the exact amount of Dibutylbis(pentane-2,4-dionato-O,O')tin
- 10) *** Calculated concentration of Aluminosilicate Refractory Ceramic Fibres and Zirconia Aluminosilicate Refractory Ceramic Fibres is based on the identified elements result and confirmation by microscope.
- 11) ****The substance does only fulfil the criteria of REACH Art. 57 (a) if it contains Michler's ketone (CAS Number: 90-94-8) or Michler's base (CAS Number: 101-61-1) in a concentration $\geq 0.1\%$ (weight / weight).
- 12) As per client's request, only the appointed materials have been tested.

TO BE CONTINUED

Appendix

No.	Substances	CAS No.	No.	Substances	CAS No.
1	Anthracene	120-12-7	22	Acrylamide	79-06-1
2	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	23	2,4-Dinitrotoluene	121-14-2
3	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	24	Diisobutyl phthalate	84-69-5
4	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	25	Tris(2-chloroethyl)phosphate	115-96-8
5	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	26	Lead chromate*	7758-97-6
6	Dibutyl phthalate (DBP)	84-74-2	27	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*	12656-85-8
7	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	28	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2
8	Benzyl butyl phthalate (BBP)	85-68-7	29	Trichloroethylene	79-01-6
9	Cobalt dichloride*	7646-79-9	30	Boric acid*	10043-35-3, 11113-50-1
10	Bis(tributyltin)oxide (TBTO) **	56-35-9	31	Disodium tetraborate, anhydrous*	1303-96-4, 1330-43-4, 12179-04-3
11	Sodium dichromate*	7789-12-0, 10588-01-9	32	Tetraboron disodium heptaoxide, hydrate*	12267-73-1
12	Lead hydrogen arsenate*	7784-40-9	33	Sodium chromate*	7775-11-3
13	Diarsenic trioxide*	1327-53-3	34	Potassium chromate*	7789-00-6
14	Diarsenic pentaoxide*	1303-28-2	35	Ammonium dichromate*	7789-09-5
15	Triethyl arsenate*	15606-95-8	36	Potassium dichromate*	7778-50-9
16	Anthracene oil	90640-80-5	37	Chromium trioxide*	1333-82-0
17	Anthracene oil, anthracene paste, distn. lights	91995-17-4	38	2-Ethoxyethanol	110-80-5
18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	39	2-Methoxyethanol	109-86-4
19	Anthracene oil, anthracene-low	90640-82-7	40	Cobalt(II) diacetate*	71-48-7
20	Anthracene oil, anthracene paste	90640-81-6	41	Cobalt(II) carbonate*	513-79-1
21	Pitch, coal tar, high temp.	65996-93-2	42	Cobalt(II) dinitrate*	10141-05-6

TO BE CONTINUED

No.	Substances	CAS No.	No.	Substances	CAS No.
43	Cobalt(II) sulphate*	10124-43-3	62	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9
44	Acids generated from chromium trioxide and their oligomers. Group containing: Chromic acid, Dichromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid*	7738-94-5, 13530-68-2	63	Formaldehyde, oligomeric reaction products with aniline	25214-70-4
45	2-Ethoxyethyl acetate	111-15-9	64	Bis(2-methoxyethyl) phthalate	117-82-8
46	Strontium chromate*	7789-06-2	65	Lead diazide, Lead azide*	13424-46-9
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	66	Lead styphnate*	15245-44-0
48	Hydrazine	7803-57-8 302-01-2	67	2,2'-dichloro-4,4'-methylenedianiline	101-14-4
49	1-methyl-2-pyrrolidone(NMP)	872-50-4	68	Phenolphthalein	77-09-8
50	1,2,3-trichloropropane	96-18-4	69	Dichromium tris(chromate)*	24613-89-6
51	1, 2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	70	Aluminosilicate Refractory Ceramic Fibres***	-
52	Calcium arsenate*	7778-44-1	71	Zirconia Aluminosilicate Refractory Ceramic Fibres***	-
53	Bis(2-methoxyethyl) ether	111-96-6	72	1,2-bis (2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2
54	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4
55	Lead dipicrate*	6477-64-1	74	Diboron trioxide*	1303-86-2
56	N,N-dimethylacetamide	127-19-5	75	Formamide	75-12-7
57	Arsenic acid*	7778-39-4	76	Lead(II) bis(methanesulfonate)*	17570-76-2
58	2-Methoxyaniline; o-Anisidine	90-04-0	77	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9
59	Trilead diarsenate*	3687-31-8	78	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6
60	1,2-dichloroethane	107-06-2	79	4,4'-bis (dimethylamino) benzophenone (Michler's ketone)	90-94-8
61	Pentazinc chromate octahydroxide*	49663-84-5	80	N, N, N', N' -tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1

TO BE CONTINUED

No.	Substances	CAS No.	No.	Substances	CAS No.
81	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)****	548-62-9	98	Lead monoxide (Lead oxide)*	1317-36-8
82	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylenecyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)****	2580-56-5	99	Orange lead (Lead tetroxide)*	1314-41-6
83	α,α -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)****	6786-83-0	100	Lead bis(tetrafluoroborate)*	13814-96-5
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol****	561-41-1	101	Trilead bis(carbonate)dihydroxide*	1319-46-6
85	Bis(pentabromophenyl) ether (decabromodiphenylether; DecaBDE)	1163-19-5	102	Lead titanium trioxide*	12060-00-3
86	Pentacosafuorotridecanoic acid	72629-94-8	103	Lead titanium zirconium oxide*	12626-81-2
87	Tricosafuorododecanoic acid	307-55-1	104	Silicic acid, lead salt*	11120-22-2
88	Henicosafuoroundecanoic acid	2058-94-8	105	Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped*	68784-75-8
89	Heptacosafuorotetradecanoic acid	376-06-7	106	1-bromopropane (n-propyl bromide)	106-94-5
90	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))(ADCA)	123-77-3	107	Methyloxirane (Propylene oxide)	75-56-9
91	Cyclohexane-1,2-dicarboxylic anhydride; cis-cyclohexane-1,2-dicarboxylic anhydride; trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7, 13149-00-3, 14166-21-3	108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
92	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	109	Diisopentyl phthalate (DIPP)	605-50-5
93	4-Nonylphenol, branched and linear	-	110	N-pentyl-isopentylphthalate	776297-69-9
94	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	111	1,2-diethoxyethane	629-14-1
95	Methoxyacetic acid	625-45-6	112	Acetic acid, lead salt, basic*	51404-69-4
96	N,N-dimethylformamide	68-12-2	113	Lead oxide sulfate*	12036-76-9
97	Dibutyltin dichloride (DBTC)	683-18-1	114	[Phthalato(2-)]dioxotrilead*	69011-06-9

TO BE CONTINUED

No.	Substances	CAS No.	No.	Substances	CAS No.
115	Dioxobis(stearato)trilead*	12578-12-0	132	4-aminoazobenzene	60-09-3
116	Fatty acids, C16-18, lead salts*	91031-62-8	133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7
117	Lead cyanamidate*	20837-86-9	134	6-methoxy-m-toluidine (p-cresidine)	120-71-8
118	Lead dinitrate*	10099-74-8	135	Biphenyl-4-ylamine	92-67-1
119	Pentalead tetraoxide sulphate*	12065-90-6	136	o-aminoazotoluene	97-56-3
120	Pyrochlore, antimony lead yellow*	8012-00-8	137	o-toluidine	95-53-4
121	Sulfurous acid, lead salt, dibasic*	62229-08-7	138	N-methylacetamide	79-16-3
122	Tetraethyllead*	78-00-2	139	Cadmium	7440-43-9
123	Tetralead trioxide sulphate*	12202-17-4	140	Cadmium oxide*	1306-19-0
124	Trilead dioxide phosphonate*	12141-20-7	141	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
125	Furan	110-00-9	142	Pentadecafluorooctanoic acid (PFOA)	335-67-1
126	Diethyl sulphate	64-67-5	143	Dipentyl phthalate (DPP)	131-18-0
127	Dimethyl sulphate	77-78-1	144	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	-
128	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	145	Cadmium sulphide*	1306-23-6
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	146	Dihexyl phthalate	84-75-3
130	4,4'-methylenedi-o-toluidine	838-88-0	147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis azo]]bis (4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0
131	4,4'-oxydianiline and its salts	-	148	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate(C.I. Direct Black 38)	1937-37-7

TO BE CONTINUED

No.	Substances	CAS No.	No.	Substances	CAS No.
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	160	Cadmium sulphate*	10124-36-4; 31119-53-6
150	Lead di(acetate)*	301-04-2	161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-
151	Trixylyl phosphate	25155-23-1	162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5; 68648-93-1
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	-
153	Cadmium chloride*	10108-64-2	164	1,3-propanesultone	1120-71-4
154	Sodium perborate; perboric acid, sodium salt*	15120-21-5 11138-47-9	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1
155	Sodium peroxometaborate*	7632-04-4	166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3
156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	167	Nitrobenzene	98-95-3
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8
159	Cadmium fluoride*	7790-79-6	170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7

TO BE CONTINUED

No.	Substances	CAS No.	No.	Substances	CAS No.
171	4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	186	Disodium octaborate*	12008-41-2
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2 3830-45-3 3108-42-7	187	Benzo[ghi]perylene	191-24-2
173	p-(1,1-Dimethylpropyl)phenol	80-46-6	188	Terphenyl hydrogenated	61788-32-7
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	-	189	Ethylenediamine (EDA)	107-15-3
175	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	190	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7
176	Benz[a]anthracene	56-55-3 1718-53-2	191	Dicyclohexyl phthalate (DCHP)	84-61-7
177	Cadmium nitrate*	10325-94-7 10022-68-1	192	Pyrene	129-00-0; 1718-52-1
178	Cadmium carbonate*	513-78-0	193	Phenanthrene	85-01-8
179	Cadmium hydroxide*	21041-95-2	194	Fluoranthene	206-44-0; 93951-69-0
180	Chrysene	218-01-9	195	Benzo[k]fluoranthene	207-08-9
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	-	196	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6
182	Octamethylcyclotetrasiloxane (D4)	556-67-2	197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	15087-24-8
183	Decamethylcyclopentasiloxane (D5)	541-02-6	198	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-
184	Dodecamethylcyclohexasiloxane (D6)	540-97-6	199	4-tert-butylphenol	98-54-4
185	Lead	7439-92-1	200	2-methoxyethyl acetate	110-49-6

TO BE CONTINUED

No.	Substances	CAS No.	No.	Substances	CAS No.
201	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	207	2-methylimidazole	693-98-1
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	208	Butyl 4-hydroxybenzoate	94-26-8
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	209	Dibutylbis(pentane-2,4-dionato-O,O')tin**	22673-19-4
204	Diisohexyl phthalate	71850-09-4	210	Bis(2-(2-methoxyethoxy)ethyl)ether; (Tetraglyme)	143-24-8
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	-
206	1-vinylimidazole	1072-63-5			

END OF THE REPORT