



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 1 of 18

Applicant : Asia Pacific Circuits Co., Ltd

Address : No. 55A, Bao'an Ave, Bao'an District, Shenzhen City, 518102, China

Report on the submitted samples said to be:

Sample Name : Carbon Ink PCB

Trade Mark : N/A

Style No. : 85-0126-11, 85-0126-01, 85-0126-02, 85-0126-03, 85-0126-04, 85-0126-05,
85-0126-06, 85-0126-07, 85-0126-08, 85-0126-09, 85-0126-10, 85-0126-12,
85-0126-13, 85-0126-14, 85-0126-15, 85-0126-16, 85-0126-17, 85-0126-18,
85-0126-19, 85-0126-20

Testing Period : May 19, 2021 ~ May 26, 2021

Results : Please refer to next page(s).

TEST REQUEST	CONCLUSION
As specified by client, refer to EU Regulation (EC) No 1907/2006 (REACH), to screen two hundred and eleven (211) Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on January 19, 2021, by screening and testing, the results of all items(SVHC) are less than 0.1%(w/w) in the articles of the submitted sample.	Pass
As specified by client, to screen proposed Eight (8) Substances of Very High Concern (SVHC) in the submitted sample. The list of substances is published by European Chemicals Administration (ECHA) on March 9, 2021, the results of all proposed 8 SVHC are less than 0.1% in the submitted sample(s.)	Pass

Signed for and on behalf of LCS





TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 2 of 18

Sample Description

Sample No.	Sample Description
1	PCB board

A. Test results of Substances in candidate list of SVHC:

No.	Items	CAS No.	EC No.	MDL(%)	Total(%)
					1
--	All tested SVHC in candidate list	/	/	/	N.D.

B. Test results of proposed 8 SVHC:

No.	Items	CAS No.	EC No.	MDL(%)	Total(%)
					1
1	Dioxane	123-91-1	204-661-8	0.1	N.D.
2	2,2-Bis(bromomethyl)propane-1,3-diol (BMP) Trisbromoneopentyl alcohol(TBNPA) 2,3-Dibromo-1-Propanol(2,3-DBPA)	3296-90-0 (BMP) 36483-57-5/ 522-92-5 (TBNPA) 96-13-9 (2,3-DBPA)	221-967-7 (BMP) 253-057-0 (TBNPA) 202-480-9 (2,3-DBPA)	0.1	N.D.
3	2-(4-tert-Butylbenzyl)propionaldehyde and its stereoisomers	/	/	0.1	N.D.
4	2,2-Bis(4-hydroxyphenyl)butane	77-40-7	201-025-1	0.1	N.D.
5	Glutaraldehyde	111-30-8	203-856-5	0.1	N.D.
6	Middle Chain Chlorinated Paraffins (MCCPs)	/	/	0.1	N.D.
7	Sodium Borate	13840-56-7	237-560-2	0.1	N.D.
8	The carbon chains (C12 dominant, straight or branched) are mainly in the para-alkyl phenolics and any individual isomers or combinations thereof (PDDP)	/	/	0.1	N.D.



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 3 of 18

Note:

-N.D.=Not Detected(<report limit)

-0.1%=1000mg/kg

-mg/kg=ppm=parts per million

- Substances in candidate list of SVHC please refer to following page(s).

-#= As specified by client, the submitted samples were equal mass proportional mixed to test, and the results are calculated based on the total sample quality

-= The test results of Diboron trioxide, Boric acid, Disodium tetraborate, anhydrous, Tetraboron disodium heptaoxide, hydrate, Lead bis(tetrafluoroborate), Sodium peroxometaborate and sodium perborate, perboric acid, sodium salt, Disodium octaborate were based on the water extraction content of Boron.

Remarks:

1. As the Result of above substance that identified is based on the worst case scenario. Further investigation is required for confirmation of the presence of the substance in the sample.
2. The report limit is evaluated based on the representative substances
3. The results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 4 of 18

C. Tested SVHC Chemical list:

No.	Items	CAS No.	EC No.	Report Limit
The first 15 SVHC(Announced in October, 2008)) Unit: %				
1	Anthracene	120-12-7	204-371-1	0.1000
2	4,4'-Diaminodiphenylmethane	101-77-9	202-974-4	0.1000
3	Dibutyl phthalate (DBP)	84-74-2	201-557-4	0.1000
4	Di-(2-ethylhexyl) Phthalate (DEHP)	117-81-7	204-211-0	0.1000
5	Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	0.1000
6	Bis(tributyltin)oxide (TBTO)	56-35-9	200-268-0	0.1000
7	5-tert-butyl-2,4,6-trinitro-m-xylene(musk xylene)	81-15-2	201-329-4	0.1000
8	Hexabromocyclododecane and all major diastereoisomers identified:(α -HBCDD, β -HBCDD, γ -HBCDD) (HBCDD)	25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)	247-148-4/ 221-695-9	0.1000
9	Short Chain Chlorinated Paraffins (SCCPs)	85535-84-8	287-476-5	0.1000
10	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.0500
11	Triethyl arsenate*	15606-95-8	427-700-2	0.0500
12	Diarsenic pentaoxide*	1303-28-2	215-116-9	0.0500
13	Diarsenic trioxide*	1327-53-3	215-481-4	0.0500
14	Cobalt dichloride*	7646-79-9	231-589-4	0.0500
15	Sodium dichromate*	7789-12-0, 10588-01-9	234-190-3	0.0500
The second 13 SVHC(Announced in January and March,2010) Unit: %				
16	^① Anthracene oil	90640-80-5	292-602-7	0.1000
17	^① Anthracene oil, anthracene paste, distn. Lights****	91995-17-4	295-278-5	0.1000
18	^① Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.1000
19	^① Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.1000
20	^① Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.1000
21	Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	0.1000
22	2,4-Dinitrotoluene	121-14-2	204-450-0	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 5 of 18

No.	Items	CAS No.	EC No.	Report Limit
The second 13 SVHC(Announced in January and March,2010) Unit: %				
23	^② Lead chromate	7758-97-6	231-846-0	0.0500
24	^② Lead chromate molybdate sulphate red (C.I. Pigment Red 104) ***	12656-85-8	235-759-9	0.0500
25	^② Leadsulfochromate yellow(C.I. Pigment Yellow 34)***	1344-37-2	215-693-7	0.0500
26	^① Pitch, coal tar, high temperature	65996-93-2	266-028-2	0.1000
27	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5	0.1000
28	Acrylamide	79-06-1	201-173-7	0.1000
The third 8 SVHC(Announced in June, 2010) Unit: %				
29	Trichloroethylene	79-01-6	201-167-4	0.1000
30	Boric acid*	10043-35-3/ 11113-50-1	233-139-2 234-343-4	0.0500
31	Disodium tetraborate, anhydrous*	1330-43-4 12179-04-3 1303-96-4	215-540-4	0.0500
32	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	0.0500
33	Sodium chromate*	7775-11-3	231-889-5	0.0500
34	Potassium chromate*	7789-00-6	232-140-5	0.0500
35	Ammonium dichromate*	7789-09-5	232-143-1	0.0500
36	Potassium dichromate*	7778-50-9	231-906-6	0.0500
The fourth 8 SVHC(Announced in December,2010) Unit: %				
37	Chromium trioxide*	1333-82-0	215-607-8	0.0500
38	2-Methoxyethanol	109-86-4	203-713-7	0.1000
39	2-Ethoxyethanol	110-80-5	203-804-1	0.1000
40	Cobalt(II) diacetate*	71-48-7	200-755-8	0.0500
41	Cobalt(II) carbonate*	513-79-1	208-169-4	0.0500
42	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.0500
43	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.0500
44	Acids generated fromchromium trioxide* andtheir oligomers: Chromic acid, Dichromic acid Oligomers of chromic acid and dichromicacid	7738-94-5 13530-68-2	231-801-5 236-881-5	0.0500



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 6 of 18

No.	Items	CAS No.	EC No.	Report Limit
The fifth 7 SVHC(Announced in June, 2011) Unit: %				
45	(2-EEA)2-ethoxyethyl acetate	111-15-9	203-839-2	0.1000
46	strontium chromate*	7789-06-2	232-142-6	0.0500
47	① 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters(DHNUP)	68515-42-4	271-084-6	0.1000
48	Hydrazine	7803-57-8 302-01-2	206-114-9	0.1000
49	1-methyl-2-pyrrolidone	872-50-4	212-828-1	0.1000
50	1,2,3-trichloropropane	96-18-4	202-486-1	0.1000
51	① 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich(DIHP)	71888-89-6	276-158-1	0.1000
The sixth 20 SVHC(Announced in December, 2011) Unit: %				
52	② Aluminosilicate, Refractory Ceramic Fibres	—	650-017-00-8**	0.0500
53	② Zirconia Aluminosilicate, Refractory Ceramic Fibres	—	650-017-00-8**	0.0500
54	Dichromium tris(chromate) *	24613-89-6	246-356-2	0.0500
55	Potassium hydroxyoctaoxodizincate di-chromate*	11103-86-9	234-329-8	0.0500
56	Pentazinc chromate octahydroxide (C.I. pigment yellow 36)***	49663-84-5	256-418-0	0.0500
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1	0.1000
58	Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	204-212-6	0.1000
59	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	0.1000
60	4-(1,1,3,3-tetramethylbutyl)phenol,(4-tert-Octyl phenol)	140-66-9	205-426-2	0.1000
61	1,2-Dichloroethane	107-06-2	203-458-1	0.1000
62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.1000
63	Arsenic acid*	7778-39-4	231-901-9	0.0500
64	Calcium arsenate*	7778-44-1	231-904-5	0.0500
65	Trileaddiarsenate*	3687-31-8	222-979-5	0.0500
66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 7 of 18

No.	Items	CAS No.	EC No.	Report Limit
The sixth 20 SVHC(Announced in December, 2011) Unit: %				
67	Phenolphthalein	77-09-8	201-004-7	0.1000
68	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	0.1000
69	Lead azide; Lead diazide*	13424-46-9	236-542-1	0.0500
70	Lead styphnate*	15245-44-0	239-290-0	0.0500
71	*Lead dipicrate*	6477-64-1	229-335-2	0.0500
The seventh 13 SVHC(Announced in June, 2012) Unit: %				
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.1000
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.1000
74	Diboron trioxide*	1303-86-2	215-125-8	0.0500
75	Formamide	75-12-7	200-842-0	0.1000
76	Lead(II)bis(methanesulfonate)*	17570-76-2	401-750-5	0.0500
77	TGIC(1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	2451-62-9	219-514-3	0.1000
78	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6	423-400-0	0.1000
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5	0.1000
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	0.1000
81	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	208-953-6	0.1000
82	[4-[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	219-943-6	0.1000
83	α-Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8	0.1000
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2	0.1000
The eighth 54 SVHC(Announced in December, 2012) Unit: %				
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9	0.1000
86	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	0.1000
87	Tricosafuorododecanoic acid	307-55-1	206-203-2	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 8 of 18

No.	Items	CAS No.	EC No.	Report Limit
The eighth 54 SVHC(Announced in December, 2012) Unit: %				
88	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	0.1000
89	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	0.1000
90	① 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated -covering well-defined substances and UVCBsubstances, polymers and homologues	—	—	0.1000
91	① 4-Nonylphenol, branched and linear - substances with a linear and/or branched alkyl chainwith a carbon number of 9 covalently bound inposition 4 to phenol, covering also UVCB- andwell-defined substances which include any of theindividual isomers or a combination thereof	—	—	0.1000
92	Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	0.1000
93	Cyclohexane-1,2-dicarboxylic anhydride(Hexahydrophthalic anhydride - HHPA)	85-42-7	201-604-9	0.1000
94	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalicanhydride,Hexahydro-1-methylphthalic anhydride,Hexahydro-3-methylphthalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	247-094-1, 243-072-0, 256-356-4, 260-566-1	0.1000
95	Methoxy acetic acid	625-45-6	210-894-6	0.1000
96	1,2-Benzenedicarboxylic acid, dipentylester,branched and linear	84777-06-0	284-032-2	0.1000
97	Diisopentylphthalate (DIPP)	605-50-5	210-088-4	0.1000
98	N-pentyl-isopentylphthalate	776297-69-9	—	0.1000
99	1,2-Diethoxyethane	629-14-1	211-076-1	0.1000
100	N,N-dimethylformamide; dimethyl formamide	68-12-2	200-679-5	0.1000
101	Dibutyltin dichloride (DBT)	683-18-1	211-670-0	0.1000
102	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.0500
103	Basic lead carbonate (trileadbis(carbonate)dihydroxide)*	1319-46-6	215-290-6	0.0500
104	*Lead oxide sulfate (basic lead sulfate)*	12036-76-9	234-853-7	0.0500
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)*	69011-06-9	273-688-5	0.0500
106	*Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.0500
107	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	0.0500



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 9 of 18

No.	Items	CAS No.	EC No.	Report Limit
The eighth 54 SVHC(Announced in December, 2012) Unit: %				
108	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	0.0500
109	Lead cyanamide*	20837-86-9	244-073-9	0.0500
110	Lead dinitrate*	10099-74-8	233-245-9	0.0500
111	Lead oxide (lead monoxide)*	1317-36-8	215-267-0	0.0500
112	Lead tetroxide (orange lead)*	1314-41-6	215-235-6	0.0500
113	Lead titanium trioxide*	12060-00-3	235-038-9	0.0500
114	Lead Titanium Zirconium Oxide*	12626-81-2	235-727-4	0.0500
115	*Pentaleadtetraoxide sulphate*	12065-90-6	235-067-7	0.0500
116	41***Pyrochlore, antimony lead yellow C.I.***	8012-00-8	232-382-1	0.0500
117	②Silicic acid, barium salt, lead-doped*	68784-75-8	272-271-5	0.0500
118	Silicic acid, lead salt*	11120-22-2	234-363-3	0.0500
119	*Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.0500
120	Tetraethyllead*	78-00-2	201-075-4	0.0500
121	Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.0500
122	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.0500
123	Furan	110-00-9	203-727-3	0.1000
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2	0.1000
125	Diethyl sulphate	64-67-5	200-589-6	0.1000
126	Dimethyl sulphate	77-78-1	201-058-1	0.1000
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	0.1000
128	Dinoseb	88-85-7	201-861-7	0.1000
129	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.1000
130	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.1000
131	4-Aminoazobenzene;4-Phenylazoaniline	60-09-3	200-453-6	0.1000
132	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7	202-453-1	0.1000
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	0.1000
134	Biphenyl-4-ylamine	92-67-1	202-177-1	0.1000
135	o-aminoazotoluene	97-56-3	202-591-2	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 10 of 18

No.	Items	CAS No.	EC No.	Report Limit
The eighth 54 SVHC(Announced in December, 2012) Unit: %				
136	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0	0.1000
137	N-methylacetamide	79-16-3	201-182-6	0.1000
138	1-bromopropane; n-propyl bromide	106-94-5	203-445-0	0.1000
The ninth 6 SVHC(Announced in June, 2013)) Unit: %				
139	Cadmium	7440-43-9	231-152-8	0.0050
140	Cadmium oxide*	1306-19-0	215-146-2	0.0500
141	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	0.1000
142	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.1000
143	Dipentyl phthalate (DPP)	131-18-0	205-017-9	0.1000
144	①4-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 combinationsthereof]	—	—	0.1000
The tenth 7 SVHC(Announced in December, 2013) Unit: %				
145	Cadmium sulphide *	1306-23-6	215-147-8	0.0500
146	Diethyl phthalate	84-75-3	201-559-5	0.1000
147	②Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	209-358-4	0.1000
148	②Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-di sulphonate (C.I. Direct Black 38)	1937-37-7	217-710-3	0.1000
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	202-506-9	0.1000
150	Lead di(acetate) *	301-04-2	206-104-4	0.0500
151	Triethyl phosphate	25155-23-1	246-677-8	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 11 of 18

No.	Items	CAS No.	EC No.	Report Limit
The eleventh 4 SVHC(Announced in June, 2014) Unit: %				
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	0.1000
153	Cadmium chloride*	10108-64-2	233-296-7	0.0500
154	Sodium perborate; perboric acid, sodium salt*	—	239-172-9, 234-390-0	0.0500
155	Sodium peroxometaborate*	7632-04-4	231-556-4	0.0500
The twelfth 6 SVHC(Announced in December, 2014) Unit: %				
156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.1000
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	0.1000
158	Cadmium fluoride*	7790-79-6	232-222-0	0.0500
159	Cadmium sulphate*	10124-36-4; 31119-53-6	233-331-6	0.0500
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate(DOTE)	15571-58-1	239-622-4	0.1000
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)	—	—	0.1000
The thirteenth 2 SVHC(Announced in June, 2015) Unit: %				
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 (EC No. 201-559-5)	68515-51-5 68648-93-1	271-094-0 272-013-1	0.1000
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 isomers of [1] and [2] or any combination thereof]	—	—	0.1000
The fourteenth 5 SVHC(Announced in December, 2015) Unit: %				
164	Nitrobenzene	98-95-3	202-716-0	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 12 of 18

No.	Items	CAS No.	EC No.	Report Limit
The fourteenth 5 SVHC(Announced in December, 2015) Unit: %				
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	0.1000
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	0.1000
167	1,3-propanesultone	1120-71-4	214-317-9	0.1000
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptafluorooxononanoic acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3	0.1000
The fifteenth 1 SVHC(Announced in June, 2016) Unit: %				
169	Benzo[def]chrysene	50-32-8	200-028-5	0.1000
The sixteenth 4 SVHC(Announced in January, 2017) Unit: %				
170	4,4'-isopropylidenediphenol (bisphenol A) (BPA)	80-05-7	201-245-8	0.1000
171	4-heptylphenol, branched and linear (4-HPbl)	—	—	0.1000
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	-- 206-400-3 221-470-5	0.1000
173	4-tert-pentylphenol (PTAP)	80-46-6	201-280-9	0.1000
The seventeenth 1 SVHC(Announced in July, 2017)) Unit: %				
174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	—	—	0.1000
The eighteenth 7 SVHC(Announced in January, 2018) Unit: %				
175	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	—	—	0.1000
176	Benz[a]anthracene	56-55-3, 1718-53-2	200-280-6	0.1000
177	Cadmium nitrate*	10022-68-1, 10325-94-7	233-710-6	0.0500
178	Cadmium carbonate*	513-78-0	208-168-9	0.0500
179	Cadmium hydroxide*	21041-95-2	244-168-5	0.0500
180	Chrysene	218-01-9, 1719-03-5	205-923-4	0.1000
181	① 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 (4-HPbl)	—	—	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 13 of 18

No.	Items	CAS No.	EC No.	Report Limit
The nineteenth 10 SVHC(Announced in June, 2018) Unit: %				
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7	209-008-0	0.1000
183	Benzo[ghi]perylene	191-24-2	205-883-8	0.1000
184	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	0.1000
185	Dicyclohexylphthalate(DCHP)	84-61-7	201-545-9	0.1000
186	Disodium octaborate*	12008-41-2	234-541-0	0.0500
187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8	0.1000
188	Ethylenediamine (EDA)	107-15-3	203-468-6	0.1000
189	Lead	7439-92-1	231-100-4	0.0500
190	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	0.1000
191	Terphenyl, hydrogenated	61788-32-7	262-967-7	0.1000
The twentieth 6 SVHC(Announced in January, 2019) Unit: %				
192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	239-139-9	0.1000
193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	0.1000
194	Benzo[k]fluoranthene	207-08-9	205-916-6	0.1000
195	Fluoranthene	206-44-0, 93951-69-0	205-912-4	0.1000
196	Phenanthrene	85-01-8	201-581-5	0.1000
197	Pyrene	129-00-0, 1718-52-1	204-927-3	0.1000
The twenty-first 4 SVHC(Announced in July, 2019) Unit: %				
198	4-tert-butylphenol	98-54-4	202-679-0	0.1000
199	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides	--	--	0.1000
200	2-methoxyethyl acetate	110-49-6	203-772-9	0.1000
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	--	--	0.1000
The twenty-two 4 SVHC(Announced in January, 2020) Unit: %				
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	0.1000
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	0.1000



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 14 of 18

No.	Items	CAS No.	EC No.	Report Limit
The twenty-two 4 SVHC(Announced in January, 2020) Unit: %				
204	Diisohexyl phthalate	71850-09-4	276-090-2	0.1000
205	Perfluorobutane sulfonic acid (PFBS) and its salts	/	/	0.1000
The twenty- third 4 SVHC(Announced in June 16, 2020) Unit: %				
206	1-vinylimidazole	1072-63-5	214-012-0	0.1000
207	2-methylimidazole	693-98-1	211-765-7	0.1000
208	Butyl 4-hydroxybenzoate	94-26-8	202-318-7	0.1000
209	Dibutylbis(pentane-2,4-dionato-o,o')tin	22673-19-4	245-152-0	0.1000
The twenty- fourth 2 SVHC(Announced in January 19, 2021) Unit: %				
210	Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	0.1
211	Dioctyltin 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*	/	/	0.1

Proposed 8 Substances of Very High Concern on Mar. 9, 2021) Unit: %

1	Dioxane	123-91-1	204-661-8	0.1
2	2,2-Bis(bromomethyl)propane-1,3-diol (BMP) Trisbromoneopentyl alcohol(TBNPA) 2,3-Dibromo-1-Propanol(2,3-DBPA)	3296-90-0 (BMP) 36483-57-5/ 522-92-5 (TBNPA) 96-13-9 (2,3-DBPA)	221-967-7 (BMP) 253-057-0 (TBNPA) 202-480-9 (2,3-DBPA)	0.1
3	2-(4-tert-Butylbenzyl)propionaldehyde and its stereoisomers	/	/	0.1
4	2,2-Bis(4-hydroxyphenyl)butane	77-40-7	201-025-1	0.1
5	Glutaraldehyde	111-30-8	203-856-5	0.1
6	Middle Chain Chlorinated Paraffins (MCCPs)	/	/	0.1
7	Sodium Borate	13840-56-7	237-560-2	0.1
8	The carbon chains (C12 dominant, straight or branched) are mainly in the para-alkyl phenolics and any individual isomers or combinations thereof (PDDP)	/	/	0.1



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 15 of 18

Note:

-0.1%=1000mg/kg

-mg/kg=ppm=parts per million

-*:Inorganic SVHC compounds are obtained by converting the test results of cobalt, chloride, sodium, arsenic, chromium, potassium, lead, boron, zirconium, titanium, tin, phosphorus, calcium, zinc, strontium, molybdenum, aluminum and cadmium elements, and confirmed through the appropriate solvent extraction. At the same time, customers are suggested to check the chemical formula table, to further confirm whether above materials are contained.

-**: All refractory ceramic fibres are covered by index number 650-017-00-8 in Annex VI of the Regulation on Classification, Labeling and Packaging of chemical substances and mixtures, the so called CLP Regulation (Regulation(EC) No 1272/2008).

-***: C.I.:Colour Index

-****: Light fractions from distillation

①: In view of the substances are established as UVCB substances(substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents the test results are calculated based on the main constituents of the representative compounds for substances.

②: In view of the substance contain variable substances, the test results are calculated based on main constituents of the representative compounds for the substances, and the test results of the representative compounds are calculated based on the result of specified heavy metal elements.



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 16 of 18

Appendix:

(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:

<http://echa.europa.eu/web/guest/candidate-list-table>

These lists are under evaluation by ECHA and may subject to change in the future.

(2) Concerning article(s):

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).

Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.

(3) Concerning material(s):

Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

(4) Concerning substance and preparation:

If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and its amendments, client is suggested to prepare a Safety Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

-a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.

- a mixture that is classified as hazardous under the CLP Regulation (EC) No 1272/2008, when it contains a substance with concentration equal to, or greater than the classification limit as set in Regulation (EC) No. 1272/2008; or

-a mixture is not classified as hazardous under the CLP Regulation (EC) No 1272/2008, but contains either:

(a) a substance posing human health or environmental hazards in an individual concentration of $\geq 1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or $\geq 0.2\%$ by volume for gaseous mixtures; or

(b) a substance that is PBT, or vPvB in an individual concentration of $\geq 0.1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or

(c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of $\geq 0.1\%$ by weight for non-gaseous mixtures; or

(d) a substance for which there are Europe-wide workplace exposure limits.



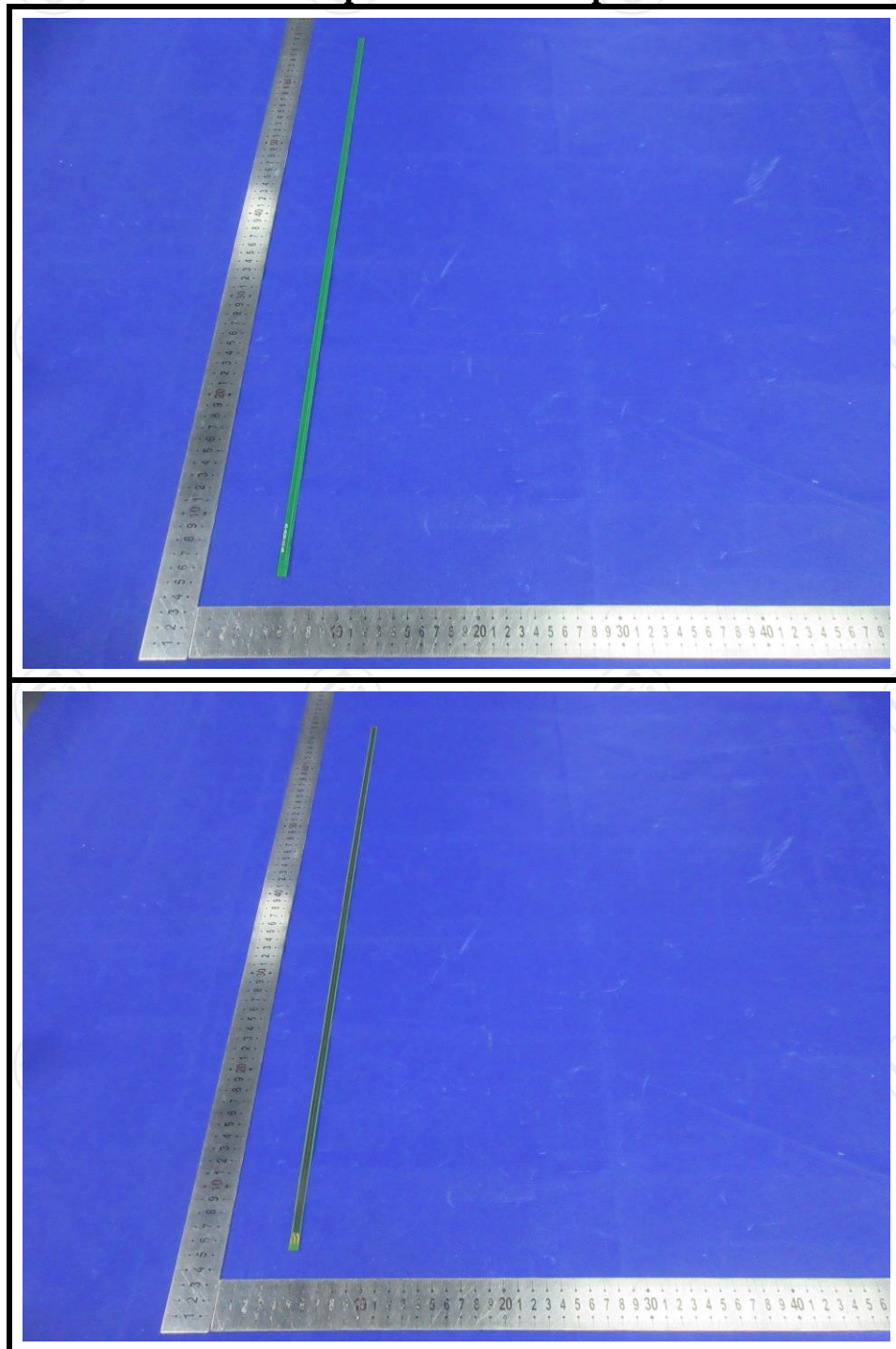
TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 17 of 18

The photo of the sample



LCS authenticate the photo on original report only

*** End of Report ***



TEST REPORT

Report No.: LCS210519038AR

Date: 2021.05.26

Page 18 of 18

Statement:

1. The test report is considered invalidated without approval signature, special seal on the perforation.
2. The result(s) shown in this report refer only to the sample(s) tested.
3. Without written approval of LCS, this report can't be reproduced except in full.
4. The sample(s) and sample information was/were provided by the client who should be responsible for the authenticity which LCS hasn't verified.
5. In case of any discrepancy between the English version and Chinese version of the testing reports(if generated), the Chinese version shall prevail.