



TEST REPORT

Report No.: A2307092-C01-R01

Date: July 21, 2023

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Applicant:

Lifud Technology Co., Ltd.

Address:

(1/F-3/F, Building F, Kutto Industrial Park) 1/F-3/F, Building B, No.26 Xinhe Road, Xinqiao Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong. 518104. China

The following sample(s) and sample information was/were submitted and identified by/on the behalf of the client:

Sample Name

LED Driver

Model No.

LF-ADD040-1050-42, LF-ADD030-0750-42,
LF-ADD013-0400-42, LF-ADD009-0200-42

Trademark



Manufacturer

Lifud Technology Co., Ltd.

Sample Received Date

July 12, 2023

Testing Period

July 13 - 18, 2023

Test Method & Test Result

Please refer to following pages.

Test Requested

As specified by client, to screen the 235 substances of very high concern (SVHC) under Regulation (EC) No 1907/2006 of REACH in the submitted sample(s).

Summary

According to the tested results, concentrations of 235 SVHC substances are all less than 0.1% (w/w) in the submitted sample(s).

Tested by:

Doom Huang

Approved by:

[Signature]



Reviewed by:

Pony Gmy

Date of issue: July 21, 2023

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Shenzhen Alpha Product Testing Co., Ltd.

Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China



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Tested Sample Description

Group No.	Group Description	Substance Name	Test result
1.	LED Driver (mixed test)	235 Substance of SVHC list	N.D

Test Method

Refer to US EPA3052:1996, US EPA 6010D:2018, US EPA 3050B:1996, US EPA3060A:1996, US EPA 3550C:2007, US EPA 3540C:1996, US EPA 8270E:2018, US EPA 8321B:2007, EN 14582:2016. ISO 17353:2004(E), AfPS GS 2019:01 PAK, IEC 62321-5:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-6:2015, IEC 62321-8:2017 for sample pretreatment. Analyzed by ICP-OES, UV-Vis, IC, GC-MS, GC-FID, HPLC and so on.



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SVHC list:

Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit(%)
I	1	Anthracene	120-12-7	204-371-1	0.050
I	2	4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	0.050
I	3	Dibutyl phthalate(DBP)	84-74-2	201-557-4	0.050
I	4	Cobalt dichloride*	7646-79-9	231-589-4	0.010
I	5	Diarsenicpentaoxide*	1303-28-2	215-116-9	0.010
I	6	Diarsenic trioxide*	1327-53-3	215-481-4	0.010
I	7	Sodium dichromate*	7789-12-0 / 10588-01-9	234-190-3	0.010
I	8	Musk xylene	81-15-2	201-329-4	0.050
I	9	Bis(2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	204-211-0	0.050
I	10	Hexabromocyclododecane (HBCDD)	3194-55-6/ 25637-99-4	247-148-4/ 221-695-9	0.050
I	11	Short Chain Chlorinated Paraffins(SCCPs)	85535-84-8	287-476-5	0.050
I	12	Bis(tributyltin)oxide (TBTO)*	56-35-9	200-268-0	0.050
I	13	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.010
I	14	Benzyl butyl phthalate(BBP)	85-68-7	201-622-7	0.050
I	15	Triethyl arsenate*	15606-95-8	427-700-2	0.010
II	16	^① Anthracene oil	90640-80-5	292-602-7	0.050
II	17	^① Anthracene oil, anthracene paste, distn. Lights ****	91995-17-4	295-278-5	0.050
II	18	^① Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.050
II	19	^① Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.050
II	20	^① Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.050
II	21	^① Coal tar pitch, high temperature	65996-93-2	266-028-2	0.050
II	22	Acrylamide	79-06-1	201-173-7	0.050
II	23	2,4-Dinitrotoluene	121-14-2	204-450-0	0.050
II	24	Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	0.050
II	25	^② Lead chromate	7758-97-6	231-846-0	0.010
II	26	^② Lead chromate molybdatesulphate red (C.I. Pigment Red 104)***	12656-85-8	235-759-9	0.010
II	27	^② Lead sulfochromate yellow(C.I. Pigment Yellow 34)***	1344-37-2	215-693-7	0.010
II	28	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5	0.050
III	29	Trichloroethylene	79-01-6	201-167-4	0.050
III	30	Boric acid*	10043-35-3 11113-50-1	233-139-2 234-343-4	0.010

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III	31	^② Disodiumtetraborate, anhydrous*****	1330-43-4 12179-04-3 1303-96-4	215-540-4	0.010
III	32	^② Tetraboron disodiumheptaoxide, hydrate*****	12267-73-1	235-541-3	0.010
III	33	Sodium chromate*	7775-11-3	231-889-5	0.010
III	34	Potassium chromate*	7789-00-6	232-140-5	0.010
III	35	Ammonium dichromate*	7789-09-5	232-143-1	0.010
III	36	Potassium dichromate*	7778-50-9	231-906-6	0.010
IV	37	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.010
IV	38	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.010
IV	39	Cobalt(II) carbonate*	513-79-1	208-169-4	0.010
IV	40	Cobalt(II) diacetate*	71-48-7	200-755-8	0.010
IV	41	2-Methoxyethanol	109-86-4	203-713-7	0.050
IV	42	2-Ethoxyethanol	110-80-5	203-804-1	0.050
IV	43	Chromium trioxide*	1333-82-0	215-607-8	0.010
IV	44	^① Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid*	7738-94-5 13530-68-2	231-801-5 236-881-5	0.010
V	45	2-ethoxyethyl acetate	111-15-9	203-839-2	0.050
V	46	Strontium chromate*	7789-06-2	232-142-6	0.010
V	47	^① 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6	0.050
V	48	Hydrazine	7803-57-8 302-01-2	206-114-9	0.050
V	49	1-methyl-2-pyrrolidone	872-50-4	212-828-1	0.050
V	50	1,2,3-trichloropropane	96-18-4	202-486-1	0.050
V	51	^① 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	276-158-1	0.050
VI	52	Dichromiumtris(chromate)*	24613-89-6	246-356-2	0.010
VI	53	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	234-329-8	0.010
VI	54	Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	0.010
VI	55	^② Aluminosilicate Refractory Ceramic Fibres (RCF) **	-	-	0.010
VI	56	^② Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) **	-	-	0.010
VI	57	^① Formaldehyde, oligomeric reaction products with aniline (technical MDA)▲	25214-70-4	500-036-1	0.050
VI	58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.050
VI	59	2-Methoxyaniline (o-Anisidine)	90-04-0	201-963-1	0.050
VI	60	4-(1,1,3,3-tetramethylbutyl) phenol (4-tert-Octylphenol)	140-66-9	205-426-2	0.050

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VI	61	1,2-Dichloroethane	107-06-2	203-458-1	0.050
VI	62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.050
VI	63	Arsenic acid*	7778-39-4	231-901-9	0.010
VI	64	Calcium arsenate*	7778-44-1	231-904-5	0.010
VI	65	Trileaddiarsenate*	3687-31-8	222-979-5	0.010
VI	66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	0.050
VI	67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	0.050
VI	68	Phenolphthalein	77-09-8	201-004-7	0.050
VI	69	Lead diazide*	13424-46-9	236-542-1	0.010
VI	70	Lead 2,4,6-trinitro-m-phenylene dioxide (Lead styphnate)*	15245-44-0	239-290-0	0.010
VI	71	Lead dipicrate*	6477-64-1	229-335-2	0.010
VII	72	1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.050
VII	73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.050
VII	74	Diboron trioxide*	1303-86-2	215-125-8	0.010
VII	75	Formamide	75-12-7	200-842-0	0.050
VII	76	Lead(II) bismethanesulfonate*	17570-76-2	401-750-5	0.010
VII	77	TGIC(1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H, 5H)-trione)	2451-62-9	219-514-3	0.050
VII	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	0.050
VII	79	4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	90-94-8	202-027-5	0.050
VII	80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	0.050
VII	81	3[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	0.050
VII	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	0.050
VII	83	4 α , α -Bis[4-(dimethylamino) phenyl]-4(phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4)***	6786-83-0	229-851-8	0.050
VII	84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2	0.050
VIII	85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	0.050

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VIII	86	④4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	-	0.050
VIII	87	Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	0.050
VIII	88	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated[covering well-defined substances and UVCB substances, polymers and homologues]	-	-	0.050
VIII	89	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	0.050
VIII	90	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	0.050
VIII	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	201-604-9, 236-086-3, 238-009-9	0.050
VIII	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	247-094-1, 243-072-0, 256-356-4, 260-566-1	0.050
VIII	93	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	0.050
VIII	94	Diisopentylphthalate(DIPP)	605-50-5	210-088-4	0.050
VIII	95	④1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	0.050
VIII	96	N-pentyl-isopentylphthalate	776297-69-9	-	0.050
VIII	97	Methoxyacetic acid	625-45-6	210-894-6	0.050
VIII	98	Tricosafuorododecanoic acid	307-55-1	206-203-2	0.050
VIII	99	1,2-Diethoxyethane	629-14-1	211-076-1	0.050
VIII	100	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	0.050
VIII	101	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	0.050
VIII	102	N-methylacetamide	79-16-3	201-182-6	0.050
VIII	103	Pentaleadtetraoxidesulphate*	12065-90-6	235-067-7	0.010
VIII	104	Biphenyl-4-ylamine	92-67-1	202-177-1	0.050
VIII	105	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	0.050
VIII	106	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.010
VIII	107	Lead dinitrate*	10099-74-8	233-245-9	0.010
VIII	108	Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.010
VIII	109	Lead monoxide (lead oxide)*	1317-36-8	215-267-0	0.010
VIII	110	Lead titanium trioxide*	12060-00-3	235-038-9	0.010
VIII	111	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.050
VIII	112	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.010

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VIII	113	Dimethyl sulphate	77-78-1	201-058-1	0.050
VIII	114	Furan	110-00-9	203-727-3	0.050
VIII	115	41 Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.010
VIII	116	Tetraethyllead*	78-00-2	201-075-4	0.010
VIII	117	[Phthalato(2-)]dioxotrilead*	69011-06-9	273-688-5	0.010
VIII	118	Diethyl sulphate	64-67-5	200-589-6	0.050
VIII	119	Lead cyanamidate*	20837-86-9	244-073-9	0.010
VIII	120	Silicic acid (H ₂ SiO ₅), barium salt (1:1), lead-doped*	68784-75-8	272-271-5	0.010
VIII	121	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.010
VIII	122	o-Toluidine	95-53-4	202-429-0	0.050
VIII	123	o-aminoazotoluene	97-56-3	202-591-2	0.050
VIII	124	4-aminoazobenzene	60-09-3	200-453-6	0.050
VIII	125	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	0.050
VIII	126	Dibutyltin dichloride (DBTC)*	683-18-1	211-670-0	0.050
VIII	127	Lead titanium zirconium oxide*	12626-81-2	235-727-4	0.010
VIII	128	Methyloxirane (Propylene oxide)	75-56-9	200-879-2	0.050
VIII	129	1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	0.050
VIII	130	Trileadbis(carbonate) dihydroxide*	1319-46-6	215-290-6	0.010
VIII	131	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	0.010
VIII	132	Orange lead (lead tetroxide)*	1314-41-6	215-235-6	0.010
VIII	133	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.010
VIII	134	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.050
VIII	135	Lead oxide sulfate*	12036-76-9	234-853-7	0.010
VIII	136	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	0.010
VIII	137	Silicic acid, lead salt*	11120-22-2	234-363-3	0.010
VIII	138	N,N-dimethylformamide	68-12-2	200-679-5	0.050
IX	139	Cadmium	7440-43-9	231-152-8	0.010
IX	140	Cadmium oxide*	1306-19-0	215-146-2	0.010
IX	141	Dipentyl phthalate (DPP)	131-18-0	205-017-9	0.050
IX	142	④4-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]	-	-	0.050
IX	143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	0.050
IX	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.050
X	145	①Trixylyl phosphate	25155-23-1	246-677-8	0.050

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X	146	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	217-710-3	0.050
X	147	Diethyl phthalate	84-75-3	201-559-5	0.050
X	148	Cadmium sulphide*	1306-23-6	215-147-8	0.010
X	149	Disodium 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	0.050
X	150	Lead di(acetate)*	301-04-2	206-104-4	0.010
X	151	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7	202-506-9	0.050
XI	152	①1,2-Benzenedicarboxylic acid, diethyl ester, branched and linear	68515-50-4	271-093-5	0.050
XI	153	Cadmium chloride *	10108-64-2	233-296-7	0.010
XI	154	②Sodium perborate; perboric acid, sodium salt *****	-	239-172-9, 234-390-0	0.010
XI	155	②Sodium peroxometaborate *****	7632-04-4	231-556-4	0.010
XII	156	2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.050
XII	157	2-Benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	0.050
XII	158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa- 3,5-dithia-4-stannatetradecanoate (DOTE)*	15571-58-1	239-622-4	0.050
XII	159	Cadmium fluoride*	7790-79-6	232-222-0	0.010
XII	160	Cadmium sulphate*	10124-36-4 31119-53-6	233-331-6	0.010
XII	161	①Reaction 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)*	-	-	0.050
XIII	162	①1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2- benzenedicarboxylic acid, mixed decyl and hexyl and octyldiesters with ≥ 0.3% of diethyl phthalate (EC No. 201- 559-5)	68515-51-5 68648-93-1	271-094-0, 272-013-1	0.050

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XIII	163	①5-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]	-	-	0.050
XIV	164	Nitrobenzene	98-95-3	202-716-0	0.050
XIV	165	2,4-di-tert-butyl-6-(5- chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	0.050
XIV	166	2-(2H-benzotriazol-2-yl)- 4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	253-037-1	0.050
XIV	167	1,3-propanesultone	1120-71-4	214-317-9	0.050
XIV	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3	0.050
XV	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	0.050
XVI	170	4,4'-isopropylidenediphenol (bisphenol A, BPA)	80-05-7	201-245-8	0.050
XVI	171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	221-470-5 206-400-3 --	0.050
XVI	172	p-(1,1-dimethylpropyl)phenol	80-46-6	201-280-9	0.050
XVI	173	④4-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]	--	--	0.050
XVII	174	Perfluorohexane-1-sulphonic acid and its salts	355-46-4	206-587-1	0.050
XVIII	175	Dechlorane plus (including any of its individual anti- and syn-isomers or any combination thereof)	13560-89-9 135821-74-8 135821-03-3	236-948-9 - -	0.050
XVIII	176	Benzo[a]anthracene	56-55-3	200-280-6	0.050
XVIII	177	Cadmium nitrate*	10325-94-7	233-710-6	0.010
XVIII	178	Cadmium carbonate*	513-78-0	208-168-9	0.010
XVIII	179	Cadmium hydroxide*	21041-95-2	244-168-5	0.010
XVIII	180	Chrysene	218-01-9	205-923-4	0.050

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit(%)
XVIII	181	③Reaction 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)]	-	-	0.050
XIX	182	Trimellitic Anhydride (TMA)	552-30-7	209-008-0	0.050
XIX	183	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9	0.050
XIX	184	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	0.050
XIX	185	Decamethylcyclotetrasiloxane (D5)	541-02-6	208-764-9	0.050
XIX	186	Dodecamethylcyclotetrasiloxane (D6)	540-97-6	208-762-8	0.050
XIX	187	Lead	7439-92-1	231-100-4	0.010
XIX	188	Disodium octaborate	12008-41-2	234-541-0	0.050
XIX	189	Benzo[ghi]perylene	191-24-2	205-883-8	0.050
XIX	190	Terphenyl hydrogenated	61788-32-7	262-967-7	0.050
XIX	191	Ethylenediamine(EDA)	107-15-3	203-468-6	0.050
XX	192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	0.050
XX	193	Benzo[k]fluoranthene	207-08-9	205-916-6	0.050
XX	194	Fluoranthene	206-44-0	205-912-4	0.050
XX	195	Phenanthrene	85-01-8	201-581-5	0.050
XX	196	Pyrene	129-00-0	204-927-3	0.050
XX	197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	239-139-9	0.050
XXI	198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	--	0.050
XXI	199	2-methoxyethyl acetate	110-49-6	203-772-9	0.050
XXI	200	4-tert-butylphenol (PTBP)	98-54-4	202-679-0	0.050
XXI	201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	--	0.050
XXII	202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	0.050
XXII	203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	0.050
XXII	204	Diisohexyl phthalate	71850-09-4	276-090-2	0.050
XXII	205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	--	0.050
XXIII	206	1-vinylmeidazole	1072-63-5	214-012-0	0.050

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XXIII	207	2-Methylimidazole	693-98-1	211-765-7	0.050
XXIII	208	Butyl 4-hydroxybenzoate	94-26-8	202-318-7	0.050
XXIII	209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	245-152-0	0.050
XXIV	210	Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	0.050
XXIV	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*	--	--	0.050
XXV	212	1,4-dioxane	123-91-1	204-661-8	0.050
XXV	213	2,2-bis(bromomethyl)propane-1,3-diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA); 2,3-dibromo-1-propanol (2,3-DBPA)	--	--	0.050
XXV	214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	--	--	0.050
XXV	215	4,4'-(1-methylpropylidene)bisphenol	77-40-7	201-025-1	0.050
XXV	216	Glutaral	111-30-8	203-856-5	0.050
XXV	217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	--	--	0.050
XXV	218	Orthoboric acid, sodium salt	--	--	0.010
XXV	219	Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	--	--	0.050
XXVI	220	Tris(2-methoxyethoxy)vinylsilane	1067-53-4	213-934-0	0.050
XXVI	221	S-(tricyclo[5.2.1.0 ^{2,6}]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	401-850-9	0.050
XXVI	222	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)	119-47-1	204-327-1	0.050
XXVI	223	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	--	--	0.050
XXVII	224	N-(hydroxymethyl)acrylamide	924-42-5	213-103-2	0.050
XXVIII	225	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]	37853-59-1	253-692-3	0.050
XXVIII	226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7	201-236-9	0.050

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XXVIII	227	4,4'-sulphonyldiphenol	80-09-1	201-250-5	0.050
XXVIII	228	Barium diboron tetraoxide	13701-59-2	237-222-4	0.010
XXVIII	229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	--	--	0.050
XXVIII	230	Isobutyl 4-hydroxybenzoate	4247-02-3	224-208-8	0.050
XXVIII	231	Melamine	108-78-1	203-615-4	0.050
XXVIII	232	Perfluoroheptanoic acid and its salts	--	--	0.050
XXVIII	233	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	--	473-390-7	0.050
XXVIII	234	Bis(4-chlorophenyl) sulphone	80-07-9	201-247-9	0.050
XXVIII	235	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	278-355-8	0.050

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Note:

1. w/w % = weight by weight; 0.1%=1000mg/kg =1000ppm
2. N.D = Not Detected (<report limit)
3. *:Concentration value of the substance by the conversion from the test results of certain elements.
Concentration value of Bis(tributyltin)oxide(TBTO), Dibutyltin dichloride (DBTC), 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE), 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) by the conversion from the test results of certain compounds (Tributyl Tins(TBT), Dioctyl Tins(DOT), Monoctyl Tins(MOT), Dibutyl Tins(DBT)).
4. **: 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).
5. ***: Colour Index
6. ****: Light fractions from distillation
7. *****:Concentration value of Disodiumtetraborate, anhydrous and Tetraboron disodiumheptaoxide, hydrate is evaluated by Disodiumtetraborate, with no consider of the hydrate. Concentration value of Sodium perborate; perboric acid, sodium salt; Sodium peroxometaborateis evaluated by Sodium perborate, with no consider of the hydrate.
8. ▲: Concentration value of Formaldehyde, oligomeric reaction products with aniline(technical MDA)by the conversion from the test results of certain compounds (2,4-Diaminodiphenylmethane,4,4'- Diaminodiphenylmethane, 2,6-Diaminodiphenylmethane).
9. 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.
10. 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.
11. ③: The substance is established as UVCB substance (substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents, the test result is calculated based on 4-heptylphenol, branched and linear. When the content of 4-heptylphenol, branched and linear is equal to or higher than 0.1% (w/w), the presence of the substance in the sample need to be further confirmed by checking MSDS or requesting from suppliers.



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Appendix:

1. Any supplier of an article containing a substance that is included in the Candidate List in a concentration above 0.1 % weight by weight (w/w) has the duty to communicate information in accordance with Article 33 of European Union regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
 - 1) Any supplier shall provide the recipient of the article with sufficient information to allow safe use of the article including, as a minimum, the name of that substance.
 - 2) On request by a consumer any supplier shall provide the consumer with sufficient information to allow safe use of the article including, as a minimum, the name of that substance within 45 days of receipt of the request, free of charge.
2. The supplier of a substance that is included in the Candidate List on their own shall provide the recipient of the substance with a safety data sheet for free compiled in accordance with Article 3 and Annex II of REACH.
3. The supplier of a mixture that containing a substance that is included in the Candidate List shall exchange information in accordance with Article 31, Article 32, and Annex II of REACH.
 - 1) Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation meets the criteria for classification as dangerous in accordance with Directives 1999/45/EC.
 - 2) Any supplier shall provide the recipient of the mixture with a safety data sheet for free where a preparation does not meet the criteria for classification as dangerous in accordance with Directive 1999/45/EC, but contains any substance that is included in the Candidate List in an individual concentration of ≥ 0.1 % by weight for non-gaseous mixtures or ≥ 0.2 % by volume for gaseous mixtures.

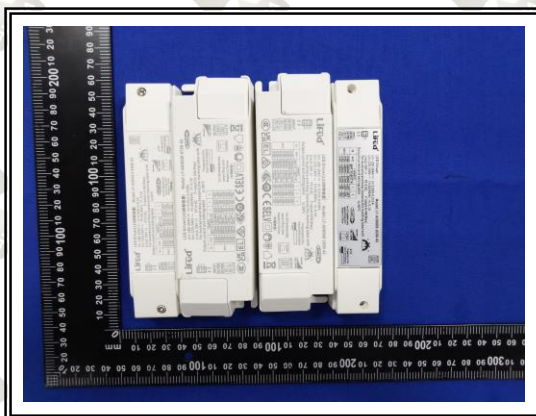
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Tested sample photo(s)



--- End of report ---

Statement:

1. The sample(s) and sample Information was/were provided by the client who should be responsible for the authenticity which ALPHA hasn't verified.
2. The result(s) shown in this report refer(s) only to the sample(s) tested.
3. Without written approval of ALPHA, this report can't be reproduced except in full.
4. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.