



Date : January 26, 2022
Our Ref. : LSE_AP_20220126

TO WHOM IT MAY CONCERN

Re: Manufacturer's Certification

RoHS (Restriction of Hazardous Substances)

REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals)

In response to the European Commission's directive to ban hazardous substances in electrical and electronic products sold in Europe effective July 1, 2006, we certify now that the products of LS ELECTRIC Cheonan Factory are RoHS compliant according to directive 2011/65/EU, as amended by EU 2015/863 of the European Parliament and of the council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

In response to the European Commission's REACH regulation concerning Registration, Evaluation, Authorization, and Restriction of Chemicals, we certify as follows: although LS ELECTRIC Cheonan Factory is principally a supplier of articles which do not require registration, we have been actively pursuing a process of contacting our suppliers of substances, preparations, and articles to ensure that all necessary pre-registration and subsequent registration requirements are complied with in the required timescales. This effort extends to all materials used by LS ELECTRIC Cheonan Factory that are within the scope of REACH and with regard to the applications in which the materials are used in our products. We have undertaken this activity with the objective of ensuring that there will be an ongoing supply of all materials used in LS ELECTRIC Cheonan Factory's products and processes and consequently no interruption in the supply of products to our customers.

LS ELECTRIC Cheonan Factory is also aware that the European Chemical Agency (ECHA) has identified a list of substances, <https://echa.europa.eu/candidate-list-table> (cited January 17, 2022), that are under consideration for inclusion in ANNEX XV as Substances of Very High Concern (SVHCs). We have already determined that our products do not contain any of these SVHCs above the threshold of 0.1% by weight.

Should you have any additional questions, do not hesitate to contact us.

Sincerely yours,

Moon Sang Chun

Head of Quality Assurance Team



No.	Substance name	EC No.	CAS No.
1	4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9
2	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	201-329-4	81-15-2
3	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8
4	Anthracene	204-371-1	120-12-7
5	Benzyl butyl phthalate (BBP)	201-622-7	85-68-7
6	Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7
7	Bis(tributyltin) oxide (TBTO)	200-268-0	56-35-9
8	Cobalt dichloride	231-589-4	7646-79-9
9	Diarsenic pentaoxide	215-116-9	1303-28-2
10	Diarsenic trioxide	215-481-4	1327-53-3
11	Dibutyl phthalate (DBP)	201-557-4	84-74-2
12	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	-	-
	Hexabromocyclododecane	247-148-4	25637-99-4
	gamma-hexabromocyclododecane	-	134237-52-8
	1,2,5,6,9,10-hexabromocyclododecane	221-695-9	3194-55-6
	alpha-hexabromocyclododecane	-	134237-50-6
	beta-hexabromocyclododecane	-	134237-51-7
13	Lead hydrogen arsenate	232-064-2	7784-40-9
14	Sodium dichromate	234-190-3	10588-01-9, 7789-12-0
15	Triethyl arsenate	427-700-2	15606-95-8
16	2,4-dinitrotoluene	204-450-0	121-14-2
17	Anthracene oil	292-602-7	90640-80-5
18	Anthracene oil, anthracene paste	292-603-2	90640-81-6
19	Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2
20	Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4
21	Anthracene oil, anthracene-low	292-604-8	90640-82-7
22	Diisobutyl phthalate	201-553-2	84-69-5
23	Lead chromate	231-846-0	7758-97-6
24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2
26	Pitch, coal tar, high-temp.	266-028-2	65996-93-2
27	Tris(2-chloroethyl) phosphate	204-118-5	115-96-8
28	Acrylamide	201-173-7	79-06-1
29	Ammonium dichromate	232-143-1	7789-09-5
30	Boric acid EC No. 233-139-2 and EC No. 234-343-4	-	-
	Boric acid, crude natural	234-343-4	11113-50-1
	Boric acid	233-139-2	10043-35-3
31	Disodium tetraborate, anhydrous	215-540-4	12179-04-3, 1303-96-4, 1330-43-4
32	Potassium chromate	232-140-5	7789-00-6
33	Potassium dichromate	231-906-6	7778-50-9
34	Sodium chromate	231-889-5	7775-11-3
35	Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1
36	Trichloroethylene	201-167-4	79-01-6
37	2-ethoxyethanol	203-804-1	110-80-5
38	2-methoxyethanol	203-713-7	109-86-4
39	Acids generated from chromium trioxide and their oligomers	-	-
	Chromic acid	231-801-5	13530-68-2
	Oligomers of chromic acid and dichromic acid	-	-
	Dichromic acid	236-881-5	7738-94-5



No.	Substance name	EC No.	CAS No.
40	Chromium trioxide	215-607-8	1333-82-0
41	Cobalt(II) carbonate	208-169-4	513-79-1
42	Cobalt(II) diacetate	200-755-8	71-48-7
43	Cobalt(II) dinitrate	233-402-1	10141-05-6
44	Cobalt(II) sulphate	233-334-2	10124-43-3
45	1,2,3-trichloropropane	202-486-1	96-18-4
46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4
48	1-Methyl-2-pyrrolidone (NMP)	212-828-1	872-50-4
49	2-ethoxyethyl acetate	203-839-2	111-15-9
50	Hydrazine	206-114-9	302-01-2, 7803-57-8
51	Strontium chromate	232-142-6	7789-06-2
52	1,2-dichloroethane	203-458-1	107-06-2
53	2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4
54	2-Methoxyaniline, o-Anisidine	201-963-1	90-04-0
55	4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9
56	Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-
57	Arsenic acid	231-901-9	7778-39-4
58	Bis(2-methoxyethyl) ether	203-924-4	111-96-6
59	Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8
60	Calcium arsenate	231-904-5	7778-44-1
61	Dichromium tris(chromate)	246-356-2	24613-89-6
62	Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4
63	Lead diazide, Lead azide	236-542-1	13424-46-9
64	Lead dipicrate	229-335-2	6477-64-1
65	Lead styphnate	239-290-0	15245-44-0
66	N,N-dimethylacetamide	204-826-4	127-19-5
67	Pentazinc chromate octahydroxide	256-418-0	49663-84-5
68	Phenolphthalein	201-004-7	77-09-8
69	Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9
70	Trilead diarsenate	222-979-5	3687-31-8
71	Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-
72	1, 2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4
73	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2
74	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazine-2,4,6-trione (TGIC)	219-514-3	2451-62-9
75	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	423-400-0	59653-74-6
76	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)	209-218-2	561-41-1
77	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8

No.	Substance name	EC No.	CAS No.
78	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)	208-953-6	548-62-9
79	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)	219-943-6	2580-56-5
80	Diboron trioxide	215-125-8	1303-86-2
81	Formamide	200-842-0	75-12-7
82	Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2
83	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1
84	α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)	229-851-8	6786-83-0
85	1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	284-032-2	84777-06-0
86	1,2-diethoxyethane	211-076-1	629-14-1
87	1-bromopropane (n-propyl bromide)	203-445-0	106-94-5
88	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2
89	4,4'-methylenedi-o-toluidine	212-658-8	838-88-0
90	4,4'-oxydianiline and its salts	-	-
	4,4'-oxydianiline	202-977-0	101-80-4
91	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated covering well-defined substances and UVCB substances, polymers and homologues	-	-
92	4-aminoazobenzene	200-453-6	60-09-3
93	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7
94	4-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	-	-
95	6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8
96	[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9
97	Acetic acid, lead salt, basic	257-175-3	51404-69-4
98	Biphenyl-4-ylamine	202-177-1	92-67-1
99	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	214-604-9	1163-19-5
100	Cyclohexane-1,2-dicarboxylic anhydride all possible combinations of the cis- and trans-isomers	-	-
	cis-cyclohexane-1,2-dicarboxylic anhydride	236-086-3	13149-00-3
	Cyclohexane-1,2-dicarboxylic anhydride	201-604-9	85-42-7
	trans-cyclohexane-1,2-dicarboxylic anhydride	238-009-9	14166-21-3
101	Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)	204-650-8	123-77-3
102	Dibutyltin dichloride (DBTC)	211-670-0	683-18-1
103	Diethyl sulphate	200-589-6	64-67-5
104	Diisopentyl phthalate	210-088-4	605-50-5
105	Dimethyl sulphate	201-058-1	77-78-1
106	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7
107	Dioxobis(stearato)trilead	235-702-8	12578-12-0
108	Fatty acids, C16-18, lead salts	292-966-7	91031-62-8
109	Furan	203-727-3	110-00-9
110	Henicosafuoroundecanoic acid	218-165-4	2058-94-8
111	Heptacosafuorotetradecanoic acid	206-803-4	376-06-7
112	Hexahydromethylphthalic anhydride including cis- and trans- stereo isomeric forms and all possible combinations of the isomers	-	-
	Hexahydro-4-methylphthalic anhydride	243-072-0	19438-60-9
	Hexahydro-3-methylphthalic anhydride	260-566-1	57110-29-9
	Hexahydro-1-methylphthalic anhydride	256-356-4	48122-14-1
	Hexahydromethylphthalic anhydride	247-094-1	25550-51-0
113	Lead bis(tetrafluoroborate)	237-486-0	13814-96-5

No.	Substance name	EC No.	CAS No.
114	Lead cyanamidate	244-073-9	20837-86-9
115	Lead dinitrate	233-245-9	10099-74-8
116	Lead monoxide (lead oxide)	215-267-0	1317-36-8
117	Lead oxide sulfate	234-853-7	12036-76-9
118	Lead titanium trioxide	235-038-9	12060-00-3
119	Lead titanium zirconium oxide	235-727-4	12626-81-2
120	Methoxyacetic acid	210-894-6	625-45-6
121	Methyloxirane (Propylene oxide)	200-879-2	75-56-9
122	N,N-dimethylformamide	200-679-5	68-12-2
123	N-methylacetamide	201-182-6	79-16-3
124	n-pentyl-isopentylphthalate	933-378-9	-
125	o-aminoazotoluene	202-591-2	97-56-3
126	o-toluidine	202-429-0	95-53-4
127	Orange lead (lead tetroxide)	215-235-6	1314-41-6
128	Pentacosfluorotridecanoic acid	276-745-2	72629-94-8
129	Pentalead tetraoxide sulphate	235-067-7	12065-90-6
130	Pyrochlore, antimony lead yellow	232-382-1	8012-00-8
131	Silicic acid (H ₂ SiO ₅), barium salt (1:1), lead-doped with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD), the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008	272-271-5	68784-75-8
132	Silicic acid, lead salt	234-363-3	11120-22-2
133	Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7
134	Tetraethyllead	201-075-4	78-00-2
135	Tetralead trioxide sulphate	235-380-9	12202-17-4
136	Tricosfluorododecanoic acid	206-203-2	307-55-1
137	Trilead bis(carbonate) dihydroxide	215-290-6	1319-46-6
138	Trilead dioxide phosphonate	235-252-2	12141-20-7
139	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	-	-
140	Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1
141	Cadmium	231-152-8	7440-43-9
142	Cadmium oxide	215-146-2	1306-19-0
143	Dipentyl phthalate (DPP)	205-017-9	131-18-0
144	Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1
145	Cadmium sulphide	215-147-8	1306-23-6
146	Diethyl phthalate	201-559-5	84-75-3
147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4	573-58-0
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)	217-710-3	1937-37-7
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	202-506-9	96-45-7
150	Lead diacetate	206-104-4	301-04-2
151	Triethyl phosphate	246-677-8	25155-23-1
152	1,2-Benzenedicarboxylic acid, diethyl ester, branched and linear	271-093-5	68515-50-4
153	Cadmium chloride	233-296-7	10108-64-2
154	Sodium perborate, perboric acid, sodium salt	-	-
	Sodium perborate	239-172-9	15120-21-5
	Perboric acid, sodium salt	234-390-0	11138-47-9
155	Sodium peroxometaborate	231-556-4	7632-04-4
156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7



No.	Substance name	EC No.	CAS No.
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1
159	Cadmium fluoride	232-222-0	7790-79-6
160	Cadmium sulphate	233-331-6	10124-36-4, 31119-53-6
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)	-	-
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate (EC No. 201-559-5)	-	-
	1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters	272-013-1	68648-93-1
	1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters	271-094-0	68515-51-5
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	-	-
	5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane	-	-
	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane	-	-
164	1,3-propanesultone	214-317-9	1120-71-4
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3
167	Nitrobenzene	202-716-0	98-95-3
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	-	-
	Perfluorononan-1-oic-acid	206-801-3	375-95-1
	Sodium salts of perfluorononan-1-oic-acid	-	-, 21049-39-8
	Ammonium salts of perfluorononan-1-oic-acid	-	-, 4149-60-4
169	Benzo[def]chrysene (Benzo[a]pyrene)	200-028-5	50-32-8
170	4,4'-isopropylidenediphenol Bisphenol A; BPA	201-245-8	80-05-7
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	-	-
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	-	-
	Nonadecafluorodecanoic acid	206-400-3	335-76-2
	Ammonium nonadecafluorodecanoate	221-470-5	3108-42-7
	Decanoic acid, nonadecafluoro-, sodium salt	-	3830-45-3
173	p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6
174	Perfluorohexane-1-sulphonic acid and its salts PFHxS	-	-
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	-	-
	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	236-948-9	13560-89-9
	rel-(1R,4S,4aS,6aS,7S,10R,10aR,12aR)-1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-1,4:7,10-dimethanodibenzo[a,e]cyclooctene	-	-
	rel-(1R,4S,4aS,6aR,7R,10S,10aS,12aR)-1,2,3,4,7,8,9,10,13,13,14,14-dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-1,4:7,10-dimethanodibenzo[a,e]cyclooctene	-	-
176	Benz[a]anthracene	200-280-6	56-55-3
177	Cadmium carbonate	208-168-9	513-78-0
178	Cadmium hydroxide	244-168-5	21041-95-2
179	Cadmium nitrate	233-710-6	10325-94-7
180	Chrysene	205-923-4	218-01-9
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear (4-HPbl)	-	-

No.	Substance name	EC No.	CAS No.
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride trimellitic anhydride; TMA	209-008-0	552-30-7
183	Benzo[ghi]perylene	205-883-8	191-24-2
184	Decamethylcyclopentasiloxane D5	208-764-9	541-02-6
185	Dicyclohexyl phthalate DCHP	201-545-9	84-61-7
186	Disodium octaborate	234-541-0	12008-41-2
187	Dodecamethylcyclohexasiloxane D6	208-762-8	540-97-6
188	Ethylenediamine EDA	203-468-6	107-15-3
189	Lead	231-100-4	7439-92-1
190	Octamethylcyclotetrasiloxane D4	209-136-7	556-67-2
191	Terphenyl, hydrogenated	262-967-7	61788-32-7
192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one 3-benzylidene camphor; 3-BC	239-139-9	15087-24-8
193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	6807-17-6
194	Benzo[k]fluoranthene	205-916-6	207-08-9
195	Fluoranthene	205-912-4	206-44-0
196	Phenanthrene	201-581-5	85-01-8
197	Pyrene	204-927-3	129-00-0
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	-	-
199	2-methoxyethyl acetate	203-772-9	110-49-6
200	4-tert-butylphenol	202-679-0	98-54-4
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	-	-
202	Perfluorobutane sulfonic acid (PFBS) and its salts	-	-
203	Diisohexyl phthalate	276-090-2	71850-09-4
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	400-600-6	71868-10-5
205	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	404-360-3	119313-12-1
206	Dibutylbis(pentane-2,4-dionato-O,O')tin	245-152-0	22673-19-4
207	Butyl 4-hydroxybenzoate	202-318-7	94-26-8
208	2-methylimidazole	211-765-7	693-98-1
209	1-vinylimidazole	214-012-0	1072-63-5
210	Bis(2-(2-methoxyethoxy)ethyl)ether	205-594-7	143-24-8
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	-	-
212	1,4-dioxane	204-661-8	123-91-1
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)	799-968-1	-
214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	799-970-2	-
215	4,4'-(1-methylpropylidene)bisphenol	201-025-1	77-40-7
216	glutaral	203-856-5	111-30-8
217	Medium-chain chlorinated paraffins (MCCP)	799-971-8	-
218	orthoboric acid, sodium salt	799-969-7	-
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)	799-972-3	-
220	($\pm$)-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)	-	-
221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	204-327-1	119-47-1



LS ELECTRIC Co., Ltd.

LS Tower, Hoge-dong, Dongan-gu, Anyang-si, Gyeonggi-do, KOREA

No.	Substance name	EC No.	CAS No.
222	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	401-850-9	255881-94-8
223	tris(2-methoxyethoxy)vinylsilane	213-934-0	1067-53-4

*1 SVHC : Substance Very High Concern (http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp)

*2 Please indicate the precise concentration where possible.

