



Report No.: TRC1404002201/EN

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Issued: 2014-04-28

Test Report

Applicant : Shenzhen Ltl Acorn Electronics Co., Ltd.
Address : 2th floor, Building 8, ShiLing Industrial Park, XinWei, XiLi Town, Nanshan District, Shenzhen, Guangdong, China

Manufacturer : Shenzhen Ltl Acorn Electronics Co., Ltd.
Address : 2th floor, Building 8, ShiLing Industrial Park, XinWei, XiLi Town, Nanshan District, Shenzhen, Guangdong, China


Sample Name : Infrared Scouting Camera
Sample Model : Ltl-5210A Ltl-5210MC Ltl-5210MM/ Ltl-5210MG

Sample Received Date : April 15, 2014
Testing Period : April 15, 2014 ~ April 28, 2014
Test Requested : As requested by client, SVHC screening is performed according to: one hundred and fifty-one (151) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before Dec 16, 2013 regarding Regulation (EC) No 1907/2006 concerning the REACH.

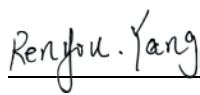
Test Method : Please refer to next page(s)
Test Results : Please refer to next page(s)
Summary : According to the specified scope and analytical technique in this report, one hundred and fifty-one (151) Substances of Very High Concern (SVHC) concentrations were less than 0.1% (m/m) in the submitted samples.

Shenzhen Huatongwei International Inspection Co.,Ltd.

Tested by:


Jinhao.yang

Reviewed by:


Renyou.yang

Approved by:


Lab Manager Calor .Li



R/C: 42270



Test Results:

No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
1	Cobalt dichloride #	7646-79-9	231-589-4	ND	ND	0.01
2	Diarsenic pentaoxide; #	1303-28-2	215-116-9	ND	ND	0.005
3	Diarsenic trioxide #	1327-53-3	215-481-4	ND	ND	0.005
4	Lead hydrogen arsenate #	7784-40-9	232-064-2	ND	ND	0.005
5	Triethyl arsenate #	15606-95-8	427-700-2	ND	ND	0.005
6	Sodium dichromate, dihydrate #	7789-12-0	234-190-3	ND	ND	0.005
7	Bis (tributyltin) oxide (TBTO) #	56-35-9	200-268-0	ND	ND	0.005
8	Anthracene	120-12-7	204-371-1	ND	ND	0.005
9	4,4-diaminodiphenylmethane (MDA)	101-77-9	202-974-4	ND	ND	0.005
10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	25637-99-4 3194-55-6	247-148-4 221-695-9	ND	ND	0.01
	α - HBCDD	134237-50-6	—			
	β - HBCDD	134237-51-7	—			
	γ - HBCDD	134237-52-8	—			
11	5-tert-butyl-2,4,6-trinitro-mxylene (musk xylene)	81-15-2	201-329-4	ND	ND	0.01
12	Bis (2-ethylhexyl) phthalate(DEHP)	117-81-7	204-211-0	ND	ND	0.01
13	Dibutyl phthalate (DBP)	84-74-2	201-557-4	ND	ND	0.005
14	Benzyl butyl phthalate(BBP)	85-68-7	201-622-7	ND	ND	0.005
15	Short chain chlorinated paraffins (C10-13)	85535-84-8	287-476-5	ND	ND	0.005
16	Anthracene oil	90640-80-5	292-602-7	ND	ND	0.01



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
17	Anthracene oil, anthracene paste, distn. lights	91995-17-4	295-278-5	ND	ND	0.01
18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	ND	ND	0.01
19	Anthracene oil, anthracene-low	90640-82-7	292-604-8	ND	ND	0.01
20	Anthracene oil, anthracene paste	90640-81-6	292-603-2	ND	ND	0.01
21	Pitch, coal tar, high temp.	65996-93-2	266-028-2	ND	ND	/
22	2,4-Dinitrotoluene	121-14-2	204-450-0	ND	ND	0.01
23	Diisobutyl phthalate(DIBP)	84-69-5	201-553-2	ND	ND	0.01
24	Lead chromate #	7758-97-6	231-846-0	ND	ND	0.01
25	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) #	12656-85-8	235-759-9	ND	ND	0.01
26	Lead sulfochromate yellow (C.I. Pigment Yellow 34) #	1344-37-2	215-693-7	ND	ND	0.01
27	Tris(2-chloroethyl)phosphate	115-96-8	204-118-5	ND	ND	0.01
28	Acrylamide	79-06-1	201-173-7	ND	ND	0.01
29	Trichloroethylene	79-01-6	201-167-4	ND	ND	0.01
30	Boric acid #	10043-35-3 11113-50-1	233-139-2 234-343-4	ND	ND	0.01
31	Disodium tetraborate, anhydrous #	1303-96-4 1330-43-4 12179-04-3	215-540-4	ND	ND	0.01
32	Tetraboron disodium heptaoxide, hydrate #	12267-73-1	235-541-3	ND	ND	0.01
33	Sodium chromate #	7775-11-3	231-889-5	ND	ND	0.01
34	Potassium chromate #	7789-00-6	232-140-5	ND	ND	0.01
35	Ammonium dichromate #	7789-09-5	232-143-1	ND	ND	0.01



No.	Substance name	CAS No.	EC No.	Results(%)		MDL	
				1	2		
36	Potassium dichromate #	7778-50-9	231-906-6	ND	ND	0.01	
37	Cobalt(II) sulphate #	10124-43-3	233-334-2	ND	ND	0.01	
38	Cobalt(II) dinitrate #	10141-05-6	233-402-1	ND	ND	0.01	
39	Cobalt(II) carbonate #	513-79-1	208-169-4	ND	ND	0.01	
40	Cobalt(II) diacetate #	71-48-7	200-755-8	ND	ND	0.01	
41	2-Methoxyethanol	109-86-4	203-713-7	ND	ND	0.01	
42	2-Ethoxyethanol	110-80-5	203-804-1	ND	ND	0.01	
43	Chromium trioxide #	1333-82-0	215-607-8	ND	ND	0.01	
44	Acids generated from chromium trioxide and their oligomers	Chromic acid #	7738-94-5	231-801-5	ND	ND	0.01
		Dichromic acid #	13530-68-2	236-881-5	ND	ND	
		Oligomers of chromic acid and dichromic acid #	—	—	ND	ND	
45	2-ethoxyethyl acetate	111-15-9	203-839-2	ND	ND	0.01	
46	Strontium chromate #	7789-6-2	232-142-6	ND	ND	0.01	
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6	ND	ND	0.01	
48	Hydrazine	7803-57-8 302-01-2	206-114-9	ND	ND	0.01	
49	1-methyl-2-pyrrolidone	872-50-4	212-828-1	ND	ND	0.01	
50	1,2,3-trichloropropane	96-18-4	202-486-1	ND	ND	0.01	
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	276-158-1	ND	ND	0.01	



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
52	Dichromium tris(chromate) #	24613-89-6	246-356-2	ND	ND	0.01
53	Potassium hydroxyoctaoxidizincatedi-chromate #	11103-86-9	234-329-8	ND	ND	0.01
54	Pentazinc chromate octahydroxide #	49663-84-5	256-418-0	ND	ND	0.01
55	Aluminosilicate Refractory Ceramic Fibres (RCF) #	—	—	ND	ND	0.05
56	Zirconia Aluminosilicate Refractory Ceramic Fibres #	—	—	ND	ND	0.05
57	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	500-036-1	ND	ND	0.01
58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	ND	ND	0.005
59	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	ND	ND	0.005
60	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	205-426-2	ND	ND	0.005
61	1,2-Dichloroethane	107-06-2	203-458-1	ND	ND	0.005
62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	ND	ND	0.005
63	Arsenic acid #	7778-39-4	231-901-9	ND	ND	0.01
64	Calcium arsenate #	7778-44-1	231-904-5	ND	ND	0.01
65	Trilead diarsenate #	3687-31-8	222-979-5	ND	ND	0.01
66	N,N-dimethylacetamide	127-19-5	204-826-4	ND	ND	0.005
67	Phenolphthalein	77-09-8	201-004-7	ND	ND	0.005



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
68	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	ND	ND	0.005
69	Lead azide Lead diazide #	13424-46-9	236-542-1	ND	ND	0.01
70	Lead styphnate #	15245-44-0	239-290-0	ND	ND	0.01
71	Lead dipicrate #	6477-64-1	229-335-2	ND	ND	0.01
72	1,2-bis(2-methoxyethoxy)ethane(TEGDME; triglyme)	112-49-2	203-977-3	ND	ND	0.005
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	ND	ND	0.005
74	Diboron trioxide #	1303-86-2	215-125-8	ND	ND	0.01
75	Formamide	75-12-7	200-842-0	ND	ND	0.01
76	Lead (II) bis (methanesulfonate) #	17570-76-2	401-750-5	ND	ND	0.005
77	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinae-2,4,6-trione(TGIC)	2451-62-9	219-514-3	ND	ND	0.005
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	423-400-0	ND	ND	0.005
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5	ND	ND	0.005
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	ND	ND	0.005
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	ND	ND	0.005
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	ND	ND	0.005
83	α,α -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I.Solvent Blue 4)	6786-83-0	229-851-8	ND	ND	0.005



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2	ND	ND	0.005
85	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	ND	ND	0.01
86	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	ND	ND	0.005
87	N-methylacetamide	79-16-3	201-182-6	ND	ND	0.01
88	Pentalead tetraoxide sulphate	12065-90-6	235-067-7	ND	ND	0.005
89	Biphenyl-4-ylamine	92-67-1	202-177-1	ND	ND	0.005
90	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	ND	ND	0.01
91	Dioxobis(stearato)trilead #	12578-12-0	235-702-8	ND	ND	0.005
92	Lead dinitrate #	10099-74-8	233-245-9	ND	ND	0.005
93	Tetralead trioxide sulphate #	12202-17-4	235-380-9	ND	ND	0.005
94	Lead oxide (lead monoxide) #	1317-36-8	215-267-0	ND	ND	0.005
95	Lead titanium trioxide #	12060-00-3	235-038-9	ND	ND	0.005
96	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	ND	ND	0.005
97	Acetic acid, lead salt, basic #	51404-69-4	257-175-3	ND	ND	0.005
98	Dimethyl sulphate	77-78-1	201-058-1	ND	ND	0.01
99	Furan	110-00-9	203-727-3	ND	ND	0.005



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
100	Pyrochlore, antimony lead yellow #	8012-00-8	232-382-1	ND	ND	0.005
101	Tetraethyllead #	78-00-2	201-075-4	ND	ND	0.005
102	[Phthalato(2-)]dioxotrilead #	69011-06-9	273-688-5	ND	ND	0.005
103	Diethyl sulphate	64-67-5	200-589-6	ND	ND	0.01
104	Lead cyanamidate #	20837-86-9	244-073-9	ND	ND	0.005
105	Silicic acid, barium salt, lead-doped #	68784-75-8	272-271-5	ND	ND	0.005
106	Trilead dioxide phosphonate #	12141-20-7	235-252-2	ND	ND	0.005
107	o-Toluidine	95-53-4	202-429-0	ND	ND	0.005
108	o-aminoazotoluene	97-56-3	202-591-2	ND	ND	0.005
109	4-Aminoazobenzene	60-09-03	200-453-6	ND	ND	0.005
110	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	ND	ND	0.005
111	Dibutyltin dichloride (DBTC) #	683-18-1	211-670-0	ND	ND	0.001
112	Lead Titanium Zirconium Oxide #	12626-81-2	235-727-4	ND	ND	0.005
113	Methyloxirane (Propylene oxide)	75-56-9	200-879-2	ND	ND	0.01
114	1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	ND	ND	0.005
115	trilead bis(carbonate)dihydroxide #	1319-46-6	215-290-6	ND	ND	0.005



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
116	Fatty acids, C16-18, lead salts #	91031-62-8	292-966-7	ND	ND	0.005
117	Orange lead(lead tetroxide) #	1314-41-6	215-235-6	ND	ND	0.005
118	Sulfurous acid, lead salt, dibasic #	62229-08-7	263-467-1	ND	ND	0.005
119	4,4'-oxydianiline and its salts	101-80-4	202-977-0	ND	ND	0.01
120	Lead oxide sulfate #	12036-76-9	234-853-7	ND	ND	0.005
121	Lead bis(tetrafluoroborate) #	13814-96-6	237-486-0	ND	ND	0.005
122	Silicic acid, lead salt #	11120-22-2	234-363-3	ND	ND	0.005
123	Bis(pentabromophenyl) ether (decabromodiphenyl ether;DecaBDE)	1163-19-5	214-604-9	ND	ND	0.001
124	4-Nonylphenol, branched and linear	—	—	ND	ND	0.01
125	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	ND	ND	0.01
126	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	—	—	ND	ND	0.01
127	1,2-Diethoxyethane	629-14-1	211-076-1	ND	ND	0.01
128	Hexahydromethylphthalic anhydride	25550-51-0	247-094-1	ND	ND	0.01
	Hexahydro-4-methylphthalic anhydride	19438-60-9	243-072-0			
	Hexahydro-1-methylphthalic anhydride	48122-14-1	256-356-4			
	Hexahydro-3-methylphthalic anhydride	57110-29-9	260-566-1			
129	Cyclohexane-1,2-dicarboxylic anhydride;	85-42-7	201-604-9	ND	ND	0.005
	cis-cyclohexane-1,2-dicarboxylic anhydride;	13149-00-3	236-086-3			
	trans-cyclohexane-1,2-dicarboxylic anhydride	14166-21-	238-009-9			
130	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	ND	ND	0.005



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
131	N-pentyl-isopentylphthalate	—	776297-69-9	ND	ND	0.005
132	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	ND	ND	0.005
133	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	ND	ND	0.005
134	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	ND	ND	0.005
135	Tricosafuorododecanoic acid	307-55-1	206-203-2	ND	ND	0.005
136	Methoxyacetic acid	625-45-6	210-894-6	ND	ND	0.005
137	Diisopentylphthalate	605-50-5	210-088-4	ND	ND	0.005
138	N,N-dimethylformamide	68-12-2	200-679-5	ND	ND	0.005
139	Cadmium	7440-43-9	231-152-8	ND	ND	0.005
140	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	ND	ND	0.005
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	ND	ND	0.005
142	Dipentyl phthalate (DPP)	131-18-0	205-017-9	ND	ND	0.005
143	4-Nonylphenol, branched and linear, ethoxylated	—	—	ND	ND	0.005
144	Cadmium oxide #	1306-19-0	215-146-2	ND	ND	0.005
145	Cadmium sulphide#	1306-23-6	215-147-8	ND	ND	0.005
146	Dihexyl phthalate	84-75-3	201-559-5	ND	ND	0.005



No.	Substance name	CAS No.	EC No.	Results(%)		MDL
				1	2	
147	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	ND	ND	0.005
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	217-710-3	ND	ND	0.005
149	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	202-506-9	ND	ND	0.01
150	Lead di(acetate) #	301-04-2	206-104-4	ND	ND	0.005
151	Trixylyl phosphate	25155-23-1	246-677-8	ND	ND	0.01

Note:

1. MDL= Method detection limit. All MDL are based on homogenous material.
2. ND = Not Detected (< MDL)
3. % = Percentage by weight
4. # =The substance is calculated by using the test results of element (E.g. Tin, Arsenic, Lead, Cobalt, Cr (VI), Molybdenum, Aluminum, Silicon, Zirconium, Sodium, Potassium, Strontium, Boron, Cadmium and so on). The SVHC concentration is based on the assessment of the result and the characteristic of material.
5. 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.
6. Reference Regulation (EC) No 1907/2006, paragraph 2 of Article 7, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance included in the Candidate List, if both the following conditions are met (a) The substance is present in those articles in quantities totalling over 1 tonne per producer or importer per year; (b) The substance is present in those articles above a concentration of 0.1 % weight by weight (w/w).
7. Reference Regulation (EC) No 1907/2006, Article 33, supplier of an article containing a substance included in the Candidate List and the 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.
8. If a SVHC is found over the MDL, 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.



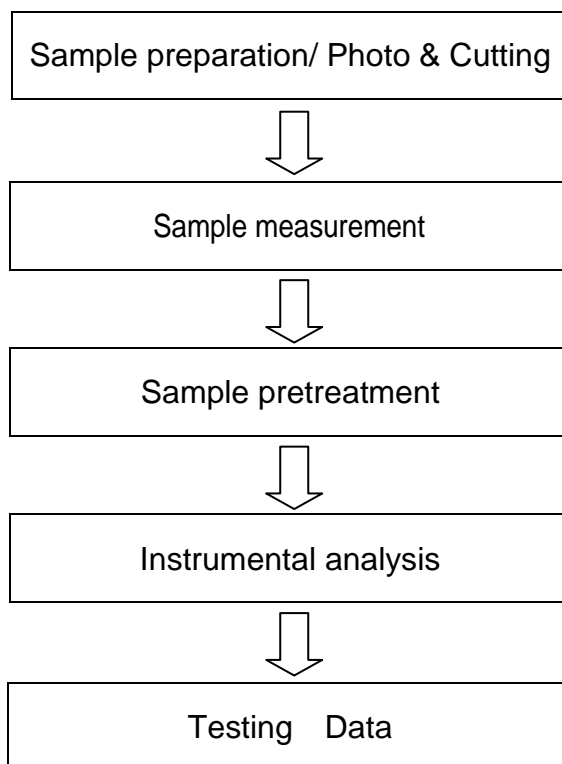
Test Method:

HTW In-House method QOC051, and analyzed by ICP-OES, GC-MS, UV-VIS , HPLC-DAD/MS and Colorimetric method.

Test components Description:

1. Infrared Scouting Camera and accessory
2. All packaging components

Test Process:





Appendix:





***** End of Report *****