

Test Report



Report No. A2220066340101

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Company Name YANGZHOU HY TECHNOLOGY DEVELOPMENT CO.,LTD.

shown on Report

Address NO. 5, WEICHAI AVENUE, BEISHAN INDUSTRIAL PARK, HUAISI, HANJIANG DISTRICT, YANGZHOU, JIANGSU, CHINA

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

Final Product Name Bridge Rectifier、 Diode、 Transister、 Module

Sample Received Date Feb. 26, 2022

Testing Period Feb. 26, 2022 to Mar. 5, 2022

Test Requested As specified by client, to screen the 223 substances of very high concern (SVHC) under Regulation(EC) No 1907/2006 of REACH in the submitted sample(s).

Test Method Please refer to the following page(s).

Test Result(s) Please refer to the following page(s).

Summary According to the analytical results, concentrations of Lead are all more than 0.1%(w/w) in the submitted sample(s) 003,005,006.

Tested by

Zhang Xiaoyu

Reviewed by

Gou Cuili

Approved by

Chen Kaimin

Date

Mar. 5, 2022

Chen kaimin

Lab Manager

No. R475317070

Centre Testing International Pinbiao(Shanghai) Co., Ltd.

No.1351, Wanfang Road, Minhang District, Shanghai, China



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

Sample No.	Sample Name(s)	Reference Report No. -Sample No.
001	Molding Compound、Black Epoxy、Case、Cadmia、 Ink	A2210124867101-001
002	Lead、 Lead Frame、 Metal Lead	A2210124867101-002
003	GPP Dice	A2210124867101-003
004	Dice	A2210124867101-004
005	High Temperature Solder	A2210124867101-005
006	Glass Packaging Diode	A2210124867101-006
007	Molding Compound、Black Epoxy、Case、Cadmia、 Ink	/
008	Lead、 Lead Frame、 Metal Lead	/
009	GPP Dice	/
010	Dice	/
011	High Temperature Solder	/
012	Glass Packaging Diode	/

Remark:

The samples with the reference information in the table above are non-tested in this report. According to the client's statement, test results and the photos of the "Sample No." column reference to "Reference Report Number - Sample No." column.

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Test Result(s)

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					001	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					002	
XIX	185	Lead	7439-92-1	231-100-4	0.013	0.01
-	-	Other tested SVHC (See the candidate list)	-	-	N.D.	-

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					003	
VI	69	Lead diazide, Lead azide*	13424-46-9	236-542-1	N.D.* ¹	0.01
VI	70	Lead styphnate*	15245-44-0	239-290-0	N.D.* ¹	0.01
VI	71	Lead dipicrate*	6477-64-1	229-335-2	N.D.* ¹	0.01
VII	76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	N.D.* ¹	0.01
VIII	103	Pentaleadtetraoxidesulphate*	12065-90-6	235-067-7	N.D.* ¹	0.01
VIII	106	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	N.D.* ¹	0.01
VIII	107	Lead dinitrate*	10099-74-8	233-245-9	N.D.* ¹	0.01
VIII	108	Tetralead trioxide sulphate*	12202-17-4	235-380-9	N.D.* ¹	0.01
VIII	109	Lead monoxide (lead oxide)*	1317-36-8	215-267-0	N.D.* ¹	0.01
VIII	112	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	N.D.* ¹	0.01
VIII	116	Tetraethyllead*	78-00-2	201-075-4	N.D.* ¹	0.01
VIII	117	[Phthalato(2-)]dioxotrilead*	69011-06-9	273-688-5	N.D.* ¹	0.01
VIII	119	Lead cyanamidate*	20837-86-9	244-073-9	N.D.* ¹	0.01
VIII	121	Trilead dioxide phosphonate*	12141-20-7	235-252-2	N.D.* ¹	0.01
VIII	130	Trileadbis(carbonate)dihydroxide*	1319-46-6	215-290-6	N.D.* ¹	0.01
VIII	131	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	N.D.* ¹	0.01
VIII	132	Orange lead (lead tetroxide)*	1314-41-6	215-235-6	N.D.* ¹	0.01
VIII	133	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	N.D.* ¹	0.01
VIII	135	Lead oxide sulfate*	12036-76-9	234-853-7	N.D.* ¹	0.01
VIII	136	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	N.D.* ¹	0.01
VIII	137	Silicic acid, lead salt*	11120-22-2	234-363-3	N.D.* ¹	0.01
X	150	Lead di(acetate)*	301-04-2	206-104-4	N.D.* ¹	0.01
XIX	185	Lead	7439-92-1	231-100-4	5.136	0.01
-	-	Other tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					004	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					005	
XIX	185	Lead	7439-92-1	231-100-4	95.613	0.01
-	-	Other tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					006	
VI	69	Lead diazide, Lead azide*	13424-46-9	236-542-1	N.D.* ¹	0.01
VI	70	Lead styphnate*	15245-44-0	239-290-0	N.D.* ¹	0.01
VI	71	Lead dipicrate*	6477-64-1	229-335-2	N.D.* ¹	0.01
VII	76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	N.D.* ¹	0.01
VIII	103	Pentaleadtetraoxidesulphate*	12065-90-6	235-067-7	N.D.* ¹	0.01
VIII	106	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	N.D.* ¹	0.01
VIII	107	Lead dinitrate*	10099-74-8	233-245-9	N.D.* ¹	0.01
VIII	108	Tetralead trioxide sulphate*	12202-17-4	235-380-9	N.D.* ¹	0.01
VIII	109	Lead monoxide (lead oxide)*	1317-36-8	215-267-0	N.D.* ¹	0.01
VIII	110	Lead titanium trioxide*	12060-00-3	235-038-9	N.D.* ¹	0.01
VIII	112	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	N.D.* ¹	0.01
VIII	115	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	N.D.* ¹	0.01
VIII	116	Tetraethyllead*	78-00-2	201-075-4	N.D.* ¹	0.01
VIII	117	[Phthalato(2-)]dioxotrilead*	69011-06-9	273-688-5	N.D.* ¹	0.01
VIII	119	Lead cyanamidate*	20837-86-9	244-073-9	N.D.* ¹	0.01
VIII	127	Lead titanium zirconium oxide*	12626-81-2	235-727-4	N.D.* ¹	0.01
VIII	130	Trileadbis(carbonate)dihydroxide*	1319-46-6	215-290-6	N.D.* ¹	0.01
VIII	131	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	N.D.* ¹	0.01
VIII	132	Orange lead (lead tetroxide)*	1314-41-6	215-235-6	N.D.* ¹	0.01
VIII	133	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	N.D.* ¹	0.01
VIII	135	Lead oxide sulfate*	12036-76-9	234-853-7	N.D.* ¹	0.01
VIII	136	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	N.D.* ¹	0.01
VIII	137	Silicic acid, lead salt*	11120-22-2	234-363-3	N.D.* ¹	0.01
X	150	Lead di(acetate)*	301-04-2	206-104-4	N.D.* ¹	0.01
XIX	185	Lead	7439-92-1	231-100-4	25.129	0.01
-	-	Other tested SVHC (See the candidate list)	-	-	N.D.	-

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					007	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					008	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					009	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					010	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					011	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Batch	No.	Substance Name(s)	CAS No.	EC No.	Concentration (%)	Report Limit (%)
					012	
-	-	All tested SVHC (See the candidate list)	-	-	N.D.	-

Test Method:

Refer to US EPA3052:1996, US EPA 3050B:1996, US EPA3060A:1996, US EPA 3550C:2007,

US EPA 3540C:1996, ISO 17353:2004(E), EN 14582:2016 for sample pretreatment.

Analyzed by ICP-OES, UV-Vis, PLM, SEM, IC, HPLC, GC-MS, GC-MS(NCI), GC-FID and LC-MS-MS.

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Sample/Part Description

Sample No.	Sample/Part Description	Number of SVHC
001	Mixed test, metal, non-metal* ²	219 (No.1-219)
002	Mixed test, metal with silvery plating* ²	219 (No.1-219)
003	Chip	219 (No.1-219)
004	Chip	219 (No.1-219)
005	Grey metal	219 (No.1-219)
006	Electronic components(Tested as a whole) * ³	219 (No.1-219)
007	Mixed test, metal, non-metal* ²	4 (No.220-223)
008	Mixed test, silvery metal, metal with silvery white plating* ²	4 (No.220-223)
009	Chip	4 (No.220-223)
010	Chip	4 (No.220-223)
011	Silvery metal	4 (No.220-223)
012	Electronic components (Tested as a whole) * ³	4 (No.220-223)

Remark:

- The table of tested result(s) only shows detected SVHC, and SVHC that below Report Limit are not reported. Please refer to the Candidate List of SVHC on next pages.
- w/w = weight by weight; 0.1% = 1000 mg/kg = 1000 ppm
- N.D. = Not Detected (<report limit)
- *: 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), Dibutylbis(pentane-2,4-dionato-O,O')tin, [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] by the conversion from the test results of certain compounds(Tributyl Tins(TBT), Dibutyl Tins(DBT), Dioctyl Tins(DOT), Monoctyl Tins(MOT)).
- ** : 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
- *****: Concentration value of Disodiumtetraborate, anhydrous and Tetraboron disodium heptaoxide, hydrate is evaluated by Disodiumtetraborate, with no consider of the hydrate. Concentration value of Sodium perborate; perboric acid, sodium salt; Sodium peroxometaborate is evaluated by Sodium perborate, with no consider of the hydrate.

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9. [▲]: Concentration value of Formaldehyde, oligomeric reaction products with aniline by the conversion from the test results of certain compounds (2,4-Diaminodiphenylmethane, 4,4'-Diaminodiphenylmethane, 2,2-Diaminodiphenylmethane).
10. ^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. When the content of the representative substances 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.
11. ^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.
12. ^{*1}: The sample contains Lead. According to the declaration of the client,it is present as the form Lead elementary substance.
13. ^{*2}:As specified by client, the test was conducted by mixing several samples together. The result(s) shown on this report may be different from the content of any homogeneous material.
14. ^{*3}:The sample(s) was tested as a whole, because it's impossible to disassemble or separate it by current equipment and technology.The result(s) shown on this report may be different from the content of any homogeneous material.

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Candidate List of SVHC

Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
I	1	Anthracene	120-12-7	204-371-1	0.005
I	2	4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	0.005
I	3	Dibutyl phthalate(DBP)	84-74-2	201-557-4	0.005
I	4 [◇]	Cobalt dichloride*	7646-79-9	231-589-4	0.01
I	5 [◇]	Diarsenic pentaoxide*	1303-28-2	215-116-9	0.01
I	6 [◇]	Diarsenic trioxide*	1327-53-3	215-481-4	0.01
I	7 [◇]	Sodium dichromate*	7789-12-0 10588-01-9	234-190-3	0.01
I	8	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	81-15-2	201-329-4	0.005
I	9	Bis(2-ethyl(hexyl)phthalate)(DEHP)	117-81-7	204-211-0	0.005
I	10	Hexabromocyclododecane (HBCDD)	25637-99-4 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	247-148-4 221-695-9	0.005
I	11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCPs)	85535-84-8	287-476-5	0.01
I	12	Bis(tributyltin)oxide (TBTO)*	56-35-9	200-268-0	0.005
I	13 [◇]	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.01
I	14	Benzyl butyl phthalate(BBP)	85-68-7	201-622-7	0.005
I	15 [◇]	Triethyl arsenate*	15606-95-8	427-700-2	0.01
II	16	^① Anthracene oil	90640-80-5	292-602-7	0.05
II	17	^① Anthracene oil, anthracene paste, distn. lights ****	91995-17-4	295-278-5	0.05
II	18	^① Anthracene oil, anthracene paste,anthracene fraction	91995-15-2	295-275-9	0.05
II	19	^① Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.05
II	20	^① Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.05
II	21	^① Pitch, coal tar, high-temp.	65996-93-2	266-028-2	0.05
II	22	Acrylamide	79-06-1	201-173-7	0.01
II	23	2,4-dinitrotoluene	121-14-2	204-450-0	0.01
II	24	Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	0.005
II	25 [◇]	^② Lead chromate	7758-97-6	231-846-0	0.05
II	26 [◇]	^② Lead chromate molybdate sulphate red (C.I. Pigment Red 104)***	12656-85-8	235-759-9	0.05

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
II	27 [◇]	^② Lead sulfochromate yellow (C.I. Pigment Yellow 34)***	1344-37-2	215-693-7	0.05
II	28	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5	0.01
III	29	Trichloroethylene	79-01-6	201-167-4	0.005
III	30 [◇]	Boric acid*	10043-35-3 11113-50-1	233-139-2 234-343-4	0.01
III	31 [◇]	^② Disodium tetraborate, anhydrous*****	1330-43-4 12179-04-3 1303-96-4	215-540-4	0.01
III	32 [◇]	^② Tetraboron disodium heptaoxide, hydrate*****	12267-73-1	235-541-3	0.01
III	33 [◇]	Sodium chromate*	7775-11-3	231-889-5	0.01
III	34 [◇]	Potassium chromate*	7789-00-6	232-140-5	0.01
III	35 [◇]	Ammonium dichromate*	7789-09-5	232-143-1	0.01
III	36 [◇]	Potassium dichromate*	7778-50-9	231-906-6	0.01
IV	37 [◇]	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.01
IV	38 [◇]	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.01
IV	39 [◇]	Cobalt(II) carbonate*	513-79-1	208-169-4	0.01
IV	40 [◇]	Cobalt(II) diacetate*	71-48-7	200-755-8	0.01
IV	41	2-methoxyethanol	109-86-4	203-713-7	0.005
IV	42	2-ethoxyethanol	110-80-5	203-804-1	0.005
IV	43 [◇]	Chromium trioxide*	1333-82-0	215-607-8	0.01
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	0.01
V	45	2-ethoxyethyl acetate	111-15-9	203-839-2	0.01
V	46 [◇]	Strontium chromate*	7789-06-2	232-142-6	0.01
V	47	^① 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6	0.01
V	48	Hydrazine	7803-57-8 302-01-2	206-114-9	0.01
V	49	1-methyl-2-pyrrolidone (NMP)	872-50-4	212-828-1	0.01
V	50	1,2,3-trichloropropane	96-18-4	202-486-1	0.01
V	51	^① 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	276-158-1	0.01
VI	52 [◇]	Dichromium tris(chromate)*	24613-89-6	246-356-2	0.01
VI	53 [◇]	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	234-329-8	0.01

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
VI	54 [◇]	Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	0.01
VI	55 [◇]	^② Aluminosilicate Refractory Ceramic Fibres (RCF) **	-	-	0.05
VI	56 [◇]	^② Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) **	-	-	0.05
VI	57	^① Formaldehyde, oligomeric reaction products with aniline [▲]	25214-70-4	500-036-1	0.01
VI	58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.005
VI	59	2-Methoxyaniline(o-Anisidine)	90-04-0	201-963-1	0.005
VI	60	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	205-426-2	0.005
VI	61	1,2-dichloroethane	107-06-2	203-458-1	0.005
VI	62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.005
VI	63 [◇]	Arsenic acid*	7778-39-4	231-901-9	0.01
VI	64 [◇]	Calcium arsenate*	7778-44-1	231-904-5	0.01
VI	65 [◇]	Trilead diarsenate*	3687-31-8	222-979-5	0.01
VI	66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	0.005
VI	67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	0.005
VI	68	Phenolphthalein	77-09-8	201-004-7	0.005
VI	69 [◇]	Lead diazide, Lead azide*	13424-46-9	236-542-1	0.01
VI	70 [◇]	Lead styphnate*	15245-44-0	239-290-0	0.01
VI	71 [◇]	Lead dipicrate*	6477-64-1	229-335-2	0.01
VII	72	1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.01
VII	73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.01
VII	74 [◇]	Diboron trioxide*	1303-86-2	215-125-8	0.01
VII	75	Formamide	75-12-7	200-842-0	0.01
VII	76 [◇]	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	0.01
VII	77	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	219-514-3	0.01
VII	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	0.01
VII	79	4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	90-94-8	202-027-5	0.01
VII	80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	0.01

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
VII	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	0.01
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	0.01
VII	83	α,α -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)***	6786-83-0	229-851-8	0.01
VII	84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2	0.01
VIII	85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	0.05
VIII	86	^① 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]	-	-	0.05
VIII	87	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))(ADCA)	123-77-3	204-650-8	0.05
VIII	88	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	0.05
VIII	89	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	0.05
VIII	90	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	0.05
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	0.05

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
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	0.05
VIII	93	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	0.05
VIII	94	Diisopentylphthalate(DIPP)	605-50-5	210-088-4	0.05
VIII	95	^① 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	0.05
VIII	96	n-pentyl-isopentylphthalate	776297-69-9	933-378-9	0.05
VIII	97	Methoxyacetic acid	625-45-6	210-894-6	0.05
VIII	98	Tricosafuorododecanoic acid	307-55-1	206-203-2	0.05
VIII	99	1,2-diethoxyethane	629-14-1	211-076-1	0.05
VIII	100	3-ethyl-2-methyl-2-(3-methylbutyl)- 1,3-oxazolidine	143860-04-2	421-150-7	0.05
VIII	101	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	0.05
VIII	102	N-methylacetamide	79-16-3	201-182-6	0.05
VIII	103 [◇]	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	0.01
VIII	104	Biphenyl-4-ylamine	92-67-1	202-177-1	0.05
VIII	105	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	0.05
VIII	106 [◇]	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.01
VIII	107 [◇]	Lead dinitrate*	10099-74-8	233-245-9	0.01
VIII	108 [◇]	Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.01
VIII	109 [◇]	Lead monoxide (lead oxide)*	1317-36-8	215-267-0	0.01
VIII	110 [◇]	Lead titanium trioxide*	12060-00-3	235-038-9	0.01
VIII	111	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.05
VIII	112 [◇]	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.01
VIII	113	Dimethyl sulphate	77-78-1	201-058-1	0.05
VIII	114	Furan	110-00-9	203-727-3	0.05
VIII	115 [◇]	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.01
VIII	116 [◇]	Tetraethyllead*	78-00-2	201-075-4	0.01
VIII	117 [◇]	[Phthalato(2-)]dioxotrilead*	69011-06-9	273-688-5	0.01
VIII	118	Diethyl sulphate	64-67-5	200-589-6	0.05
VIII	119 [◇]	Lead cyanamidate*	20837-86-9	244-073-9	0.01
VIII	120 [◇]	Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped*	68784-75-8	272-271-5	0.01
VIII	121 [◇]	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.01
VIII	122	<i>o</i> -Toluidine	95-53-4	202-429-0	0.05

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
VIII	123	<i>o</i> -aminoazotoluene	97-56-3	202-591-2	0.05
VIII	124	4-aminoazobenzene	60-09-3	200-453-6	0.05
VIII	125	6-methoxy- <i>m</i> -toluidine (<i>p</i> -cresidine)	120-71-8	204-419-1	0.05
VIII	126	Dibutyltin dichloride (DBTC)*	683-18-1	211-670-0	0.05
VIII	127 [◇]	Lead titanium zirconium oxide*	12626-81-2	235-727-4	0.01
VIII	128	Methyloxirane (Propylene oxide)	75-56-9	200-879-2	0.05
VIII	129	1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	0.05
VIII	130 [◇]	Trilead bis(carbonate)dihydroxide*	1319-46-6	215-290-6	0.01
VIII	131 [◇]	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	0.01
VIII	132 [◇]	Orange lead (lead tetroxide)*	1314-41-6	215-235-6	0.01
VIII	133 [◇]	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.01
VIII	134	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.05
VIII	135 [◇]	Lead oxide sulfate*	12036-76-9	234-853-7	0.01
VIII	136 [◇]	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	0.01
VIII	137 [◇]	Silicic acid, lead salt*	11120-22-2	234-363-3	0.01
VIII	138	N,N-dimethylformamide	68-12-2	200-679-5	0.05
IX	139 [◇]	Cadmium	7440-43-9	231-152-8	0.01
IX	140 [◇]	Cadmium oxide*	1306-19-0	215-146-2	0.01
IX	141	Dipentyl phthalate (DPP)	131-18-0	205-017-9	0.01
IX	142	^① 4-Nonylphenol, branched and linear, ethoxylated[<i>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</i>]	-	-	0.05
IX	143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	0.01
IX	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.01
X	145	^① Trixylyl phosphate	25155-23-1	246-677-8	0.01
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	0.01
X	147	Dihexyl phthalate	84-75-3	201-559-5	0.01

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
X	148 [◇]	Cadmium sulphide*	1306-23-6	215-147-8	0.01
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	0.01
X	150 [◇]	Lead di(acetate)*	301-04-2	206-104-4	0.01
X	151	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	202-506-9	0.01
XI	152	^① 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	0.01
XI	153 [◇]	Cadmium chloride*	10108-64-2	233-296-7	0.01
XI	154 [◇]	^② Sodium perborate; perboric acid, sodium salt*****	15120-21-5 11138-47-9	239-172-9 234-390-0	0.01
XI	155 [◇]	^② Sodium peroxometaborate*****	7632-04-4	231-556-4	0.01
XII	156	2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.01
XII	157	2-Benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	0.01
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	0.05
XII	159 [◇]	Cadmium fluoride*	7790-79-6	232-222-0	0.01
XII	160 [◇]	Cadmium sulphate*	10124-36-4 31119-53-6	233-331-6	0.01
XII	161	^① 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)*	-	-	0.05
XIII	162	^① 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	0.05

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
XIII	163	^① 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]	-	-	0.05
XIV	164	Nitrobenzene	98-95-3	202-716-0	0.01
XIV	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	0.01
XIV	166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	0.01
XIV	167	1,3-propanesultone	1120-71-4	214-317-9	0.01
XIV	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3 - -	0.01
XV	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5	0.01
XVI	170	4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7	201-245-8	0.01
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 -	0.01
XVI	172	<i>p</i> -(1,1-dimethylpropyl)phenol	80-46-6	201-280-9	0.01
XVI	173	^① 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]	-	-	0.05
XVII	174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	-	-	0.0005
XVIII	175	Dechlorane plus (including any of its individual anti- and syn-isomers or any combination thereof)	-	-	0.01
XVIII	176	Benzo[a]anthracene	56-55-3	200-280-6	0.01
XVIII	177 [◇]	Cadmium nitrate*	10325-94-7	233-710-6	0.01
XVIII	178 [◇]	Cadmium carbonate*	513-78-0	208-168-9	0.01

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
XVIII	179 [◇]	Cadmium hydroxide*	21041-95-2	244-168-5	0.01
XVIII	180	Chrysene	218-01-9	205-923-4	0.01
XVIII	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)]	-	-	0.05
XIX	182	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	0.01
XIX	183	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	0.01
XIX	184	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8	0.01
XIX	185 [◇]	Lead	7439-92-1	231-100-4	0.01
XIX	186 [◇]	Disodium octaborate*	12008-41-2	234-541-0	0.01
XIX	187	Benzo[ghi]perylene	191-24-2	205-883-8	0.01
XIX	188	^① Terphenyl, hydrogenated	61788-32-7	262-967-7	0.01
XIX	189	Ethylenediamine (EDA)	107-15-3	203-468-6	0.01
XIX	190	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7	209-008-0	0.01
XIX	191	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9	0.01
XX	192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	0.01
XX	193	Benzo[k]fluoranthene	207-08-9	205-916-6	0.01
XX	194	Fluoranthene	206-44-0	205-912-4	0.01
XX	195	Phenanthrene	85-01-8	201-581-5	0.01
XX	196	Pyrene	129-00-0	204-927-3	0.01
XX	197	1,7,7-trimethyl-3-(phenylmethylene) bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor) (3-BC)	15087-24-8	239-139-9	0.01
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)	-	-	0.01
XXI	199	2-methoxyethyl acetate	110-49-6	203-772-9	0.01
XXI	200	4-tert-butylphenol	98-54-4	202-679-0	0.01
XXI	201	^① Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	0.01

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
XXII	202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	0.01
XXII	203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	0.01
XXII	204	Diisohexyl phthalate	71850-09-4	276-090-2	0.01
XXII	205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	0.01
XXIII	206	1-vinylimidazole	1072-63-5	214-012-0	0.01
XXIII	207	2-methylimidazole	693-98-1	211-765-7	0.01
XXIII	208	Butyl 4-hydroxybenzoate	94-26-8	202-318-7	0.01
XXIII	209	Dibutylbis(pentane-2,4-dionato-O,O')tin *	22673-19-4	245-152-0	0.05
XXIV	210	bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	0.01
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 *	-	-	0.05
XXV	212	1,4-dioxane	123-91-1	204-661-8	0.01
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)	3296-90-0 36483-57-5 1522-92-5 96-13-9	221-967-7 253-057-0 202-480-9	0.01
XXV	214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	-	-	0.01
XXV	215	4,4'-(1-methylpropylidene)bisphenol (bisphenol B)	77-40-7	201-025-1	0.01
XXV	216	Glutaral	111-30-8	203-856-5	0.01
XXV	217	^① 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]	-	-	0.01
XXV	218 [◇]	Orthoboric acid, sodium salt *	13840-56-7	237-560-2	0.01

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Batch	No.	Substance Name(s)	CAS No.	EC No.	Report Limit (%)
XXV	219	^① Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	-	0.01
XXVI	220	(±)-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)	-	-	0.01
XXVI	221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	119-47-1	204-327-1	0.01
XXVI	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	255881-94-8	401-850-9	0.01
XXVI	223	tris(2-methoxyethoxy)vinylsilane	1067-53-4	213-934-0	0.01

“^①” indicates the tested items of 72 SVHC.

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Appendix:

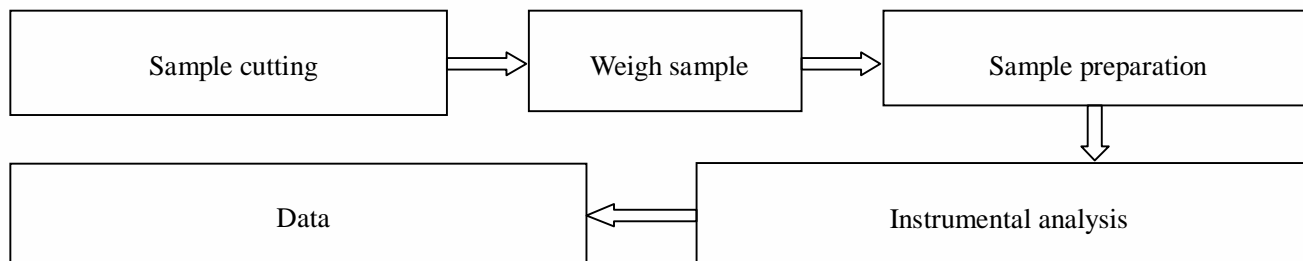
1. Any supplier of an article containing a substance that is included in the Candidate List in a concentration above 0.1 % weight by weight (w/w) has the duty to communicate information in accordance with Article 33 of European Union regulation concerning the Registration, Evaluation, Authorization and 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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Test Process



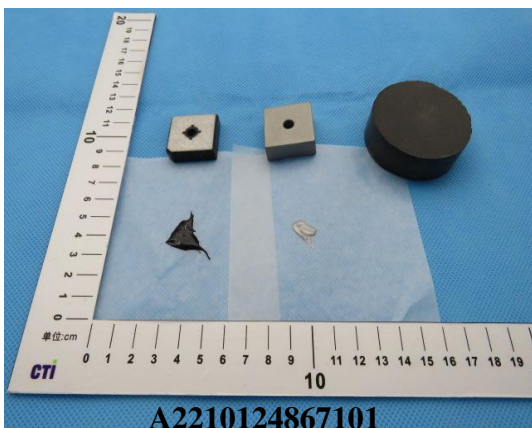
Test Report

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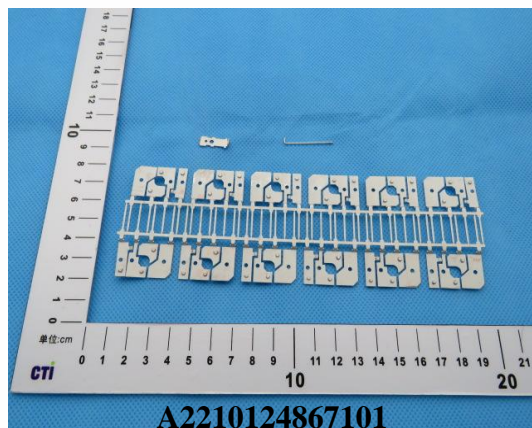
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Photo(s) of the sample(s)

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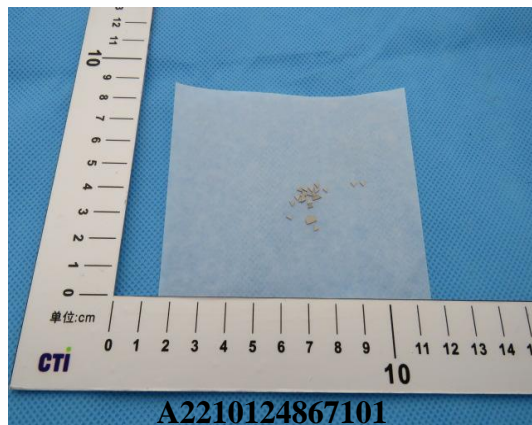
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003



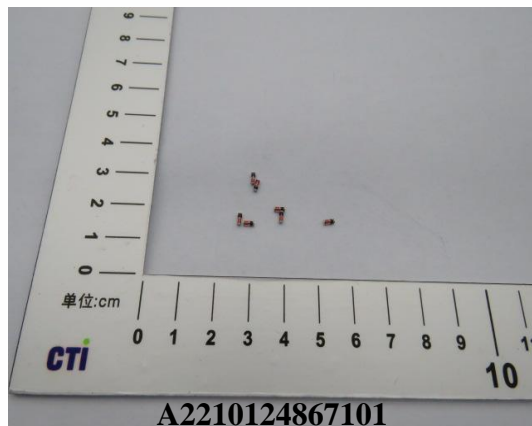
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005



006



Test Report

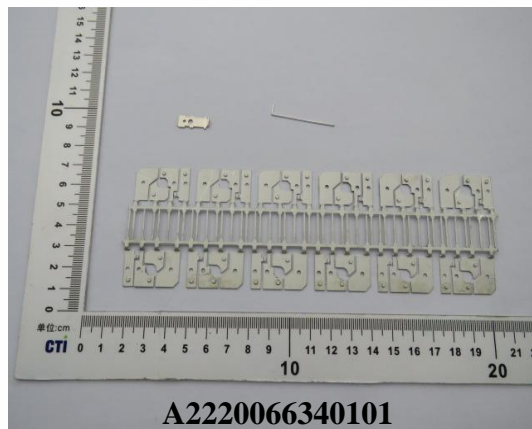
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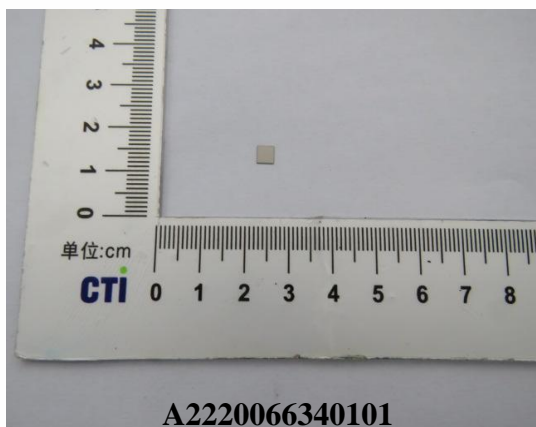
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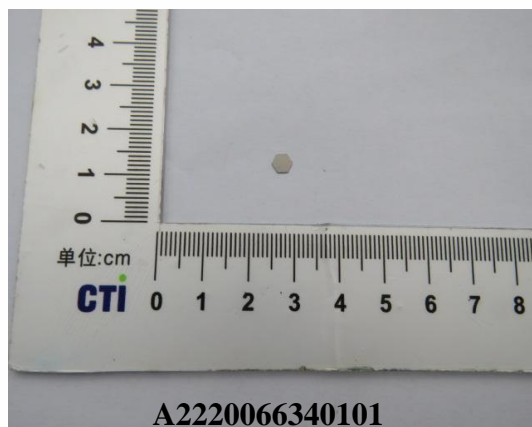
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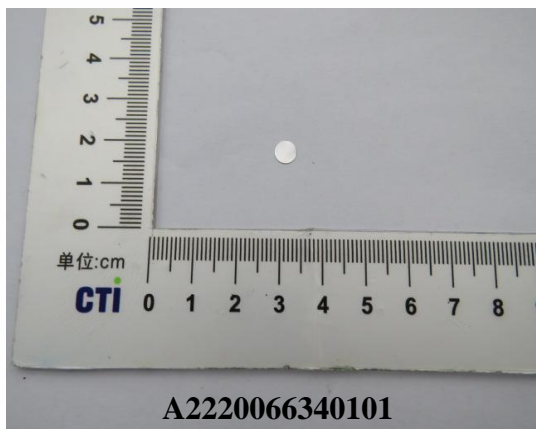
009



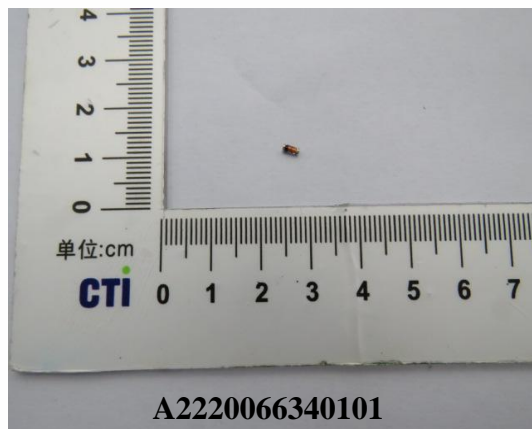
010



011



012



Test Report

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Statement:

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

*** End of Report ***

Appendix

Client Reference Information

GBJ/DF/DFS/DB/DBS/SMA/SMB/SMC/A-SMA/SMAF/SMA-HST/H-SMA/SMBF/SMB-S/DO-213AA/DO-214AA/DO-214AC/USMC/MBS/MBM/CD4148WP/CD4148WSP/BTS/TO-92/TO-3P/TO-3PN/SOD-123/323/523/723/SOT-3/227/323/343/353/363/523/SOD-123S/2GBJ/4GBJ/GBJ/GBU/GBL/GBP/TO-220/TO-263/D2PAK/D3K/KBU/KBL/KBP/TBP/TBU/TBL/TO-220AB/ITO-220AB/TO-220AC/ITO-220AC/TO-251/TO-252/TO-269AA/TO-247AB/TO-247AC/TO-247S/TO-277A/TO-277B/SOD-123FL/SOD-123F/SOD-123T/MSBL/MBS-2/ABF/ABS/ABS-A/MBS-A/MBM-A/SGBJ/HGBJ/M1/M2/M3/SOT/T1/T2/C1/C2/C3/S1/S2/S3/S4/S5/S6/S7/S8/TO-3/DV/LV/HV/P1/P2/P3/P4/MTK/YO-3/DO/TO/R-1/R-3/DO-41/DO-15/DO-15L/DO-27/R-6/A-405/DO-201/DO-201AD/DO-201AE/DO-218AB/AUTO/CELL/17-02/AR/ARS/PRESS-FIT/DL-35/DL-41/DO-34/DO-35/DO-41/DO-41G/LL-34/LL-41/Bypass Diode Module for Solarcell/KBPC/BR3/BR3T/BR6/BR8/BR10/KBPC1/KBPC3/KBPC6/KBPC8/KBPC10/PBPC3/PBPC6/PBPC8/MP6/MP8/MP10/RS1/RS2/RS5/PBL/WOB/WOG/2WOB/WOM/2WOG/RB/2WOM/MKBPC/QL/SQL/MB/KBPC-W/MKBPC-W/MB-W/BR/MBR/GBPC/SBR/MSBR/MP/GBPC-W/MP-W/BR-L/BR-W/MBR-W/SC35VB/SC50VB/H50VB/C50VB/FMB/RB15/MP/KBPC-PT/KBPC-PW/KBPC-PS/KBPC-MT/KBPC-MW/GBPC-T/MT-35/RS/JD/PRESS-FIT/WOBM/WOBT

Statement:

1. The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. The Appendix Information is/are the supplement(s) for the Report A2220066340101.