



Test Report

DEVELOP ELECTRIC CO., LTD.

NO.2, LANE 513, WANGSING RD., YONGKANG CITY, TAINAN COUNTY 710,
TAIWAN (R.O.C.)

Report No. : KA/2007/C2760A-01

Date : 2008/01/02

Page : 1 of 7



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

Sample Description : UL DEV-300 DEV-600 VW-1 PVC 105°C E152386 DEVELOP LR77177 CAS
105°C NHS VW-1 PVC DEV-300DEV-600
COLOR : TRANSPARENT
Sample Receiving Date : 2007/12/25
Testing Period : 2007/12/25 TO 2008/1/2

=====

Test Result(s) : - Please see the next page(s) -


Katherine Ho / Supervisor
Signed for and on behalf of
SGS Taiwan Limited

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TW 6176485

Test Report

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Report No. : KA/2007/C2760A-01
Date : 2008/01/02
Page : 2 of 7



Test Result(s)

PART NAME NO.1 : UL DEV-300 DEV-600 VW-1 PVC 105°C E152386 DEVELOP
LR77177 CAS 105°C NHS VW-1 PVC DEV-300DEV-600

Test Item (s)	Unit	Method	MDL	Result No. 1
Cadmium (Cd)	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Cadmium by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.	2	n.d.
Mercury (Hg)	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Mercury by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of Lead by ICP-AES.	2	n.d.
Sum of PBBs			-	---
Monobromobiphenyl	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of PBBs and PBDEs by GC/MS.	5	n.d.
Dibromobiphenyl			5	n.d.
Tribromobiphenyl			5	n.d.
Tetrabromobiphenyl			5	n.d.
Pentabromobiphenyl			5	n.d.
Hexabromobiphenyl			5	n.d.
Heptabromobiphenyl			5	n.d.
Octabromobiphenyl			5	n.d.
Nonabromobiphenyl			5	n.d.
Decabromobiphenyl			5	n.d.
Sum of PBDEs (Mono to Nona)(Note 4)			-	---
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321, ED.1 (111/54/CDV). Determination of PBBs and PBDEs by GC/MS.	5	n.d.
Dibromodiphenyl ether			5	n.d.
Tribromodiphenyl ether			5	n.d.
Tetrabromodiphenyl ether			5	n.d.
Pentabromodiphenyl ether			5	n.d.
Hexabromodiphenyl ether			5	n.d.
Heptabromodiphenyl ether			5	n.d.
Octabromodiphenyl ether			5	n.d.
Nonabromodiphenyl ether			5	n.d.
Decabromodiphenyl ether			5	n.d.
Sum of PBDEs (Mono to Deca)			-	n.d.

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TW 6169091



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Date : 2008/01/02

Page : 3 of 7

Test Item (s)	Unit	Method	MDL	Result No. 1
PCBs (Polychlorinated Biphenyls) (CAS NO.: 001336-36-3)	mg/kg	With reference to US EPA 3540C. Analysis was performed by GC/ECD.	0.5	n.d.
Polychlorinated Naphthalene	mg/kg	With reference to US EPA 3540C. Analysis was performed by	5	n.d.
PCP (Pentachlorophenol) (CAS NO.: 004901-51-3)	mg/kg	With reference to DIN 53313. Analysis was performed by GC/ECD.	0.05	n.d.
PCTs (Polychlorinated Terphenyls)	mg/kg	With reference to US EPA 3540C. Analysis was performed by	0.5	n.d.
Mirex (CAS NO.: 002385-85-5)	mg/kg	With reference to US EPA 3540C. Analysis was performed by	4	n.d.
TBBP-A-BIS (CAS NO.: 21850-44-2)	mg/kg	With reference to US EPA 3540C. Analysis was performed by GC/MS.	5	n.d.
Asbestos	---	---	---	---
Anthrophyllite (CAS NO.017068-78-9)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Crocidolite (CAS NO.012001-28-4)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Amosite (CAS NO.012172-73-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Tremolite (CAS NO.014567-73-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Chrysotile (CAS NO.012001-29-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Actinolite (CAS NO.013768-00-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Chlorinated Paraffin (C10~C13) (CAS NO.: 010871-26-2)	%	With reference to US EPA 3540C. Analysis was performed by GC/ECD.	0.01	n.d.
Organic-TIN compounds	---	---	---	---
Tributyl Tin (TBT) (CAS NO.: 000688-73-3)	mg/kg	With reference to DIN 38407-13. Analysis was performed by	0.03	n.d.
Triphenyl Tin (TphT) (CAS NO.: 000668-34-8)	mg/kg	With reference to DIN 38407-13. Analysis was performed by	0.03	n.d.

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TW 6176483

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Date : 2008/01/02

Page : 4 of 7

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Test Item (s)	Unit	Method	MDL	Result No. 1
AZO	---	---	---	---
1):4-AMINODIPHENYL (CAS NO.92-67-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
2):BENZIDINE (CAS NO.92-87-5)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
3):4-CHLORO-O-TOLUIDINE (CAS NO.95-69-2)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
4):2-NAPHTHYLAMINE (CAS NO.91-59-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
5):O-AMINO-AZOTOLUENE (CAS NO.97-56-3)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
6):2-AMINO-4-NITROTOLUENE (CAS NO.99-55-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
7):P-CHLOROANILINE (CAS NO.106-47-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
8):2,4-DIAMINOANISOLE (CAS NO.615-05-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
9):4,4-DIAMINODIPHENYLMETHANE	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
10):3,3-DICHLOROBENZIDINE (CAS NO.91-94-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
11):3,3-DIMETHOXYBENZIDINE (CAS NO.119-90-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
12):3,3-DIMETHYLBENZIDINE (CAS NO.119-93-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
13):3,3-DIMETHYL- 4,4-DIAMINODIPHENYLMETHA (CAS NO.838-88-0)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
14):P-CRESIDINE (2-METHOXY-5-METHYLANILINE) (CAS NO.120-71-8)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
15):4,4-METHYLENE-BIS- (2-CHLORANILINE) (CAS NO.101-14-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
16):4,4-OXYDIANILINE (CAS NO.101-80-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.

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Date : 2008/01/02

Page : 5 of 7

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Test Item (s)	Unit	Method	MDL	Result
				No. 1
17):4,4-THIODIANILINE (CAS NO.139-65-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
18):O-TOLUIDINE (CAS NO.95-53-4)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
19):2,4-TOLUYLENDIAMINE (CAS NO.95-80-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
20):2,4,5-TRIMETHYLANILINE (CAS NO.137-17-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
21):O-ANISIDINE (CAS NO.90-04-0)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
22):P-AMINOAZOBENZENE (CAS NO.60-09-3)	mg/kg	With reference to LMBG 82.02-Z. Analysis was performed by GC/MS.	3	n.d.
23):2,4-XYLIDINE (CAS NO.95-68-1)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.
24):2,6-XYLIDINE (CAS NO.87-62-7)	mg/kg	With reference to LMBG 82.02-2. Analysis was performed by GC/MS.	3	n.d.

- Note :
1. mg/kg = ppm
 2. n.d. = Not Detected
 3. MDL = Method Detection Limit
 4. According to 2005/717/EC DecaBDE is exempt.
 5. " --- " = Not Conducted
 6. The MDL is 5ppm for the single compound of CP

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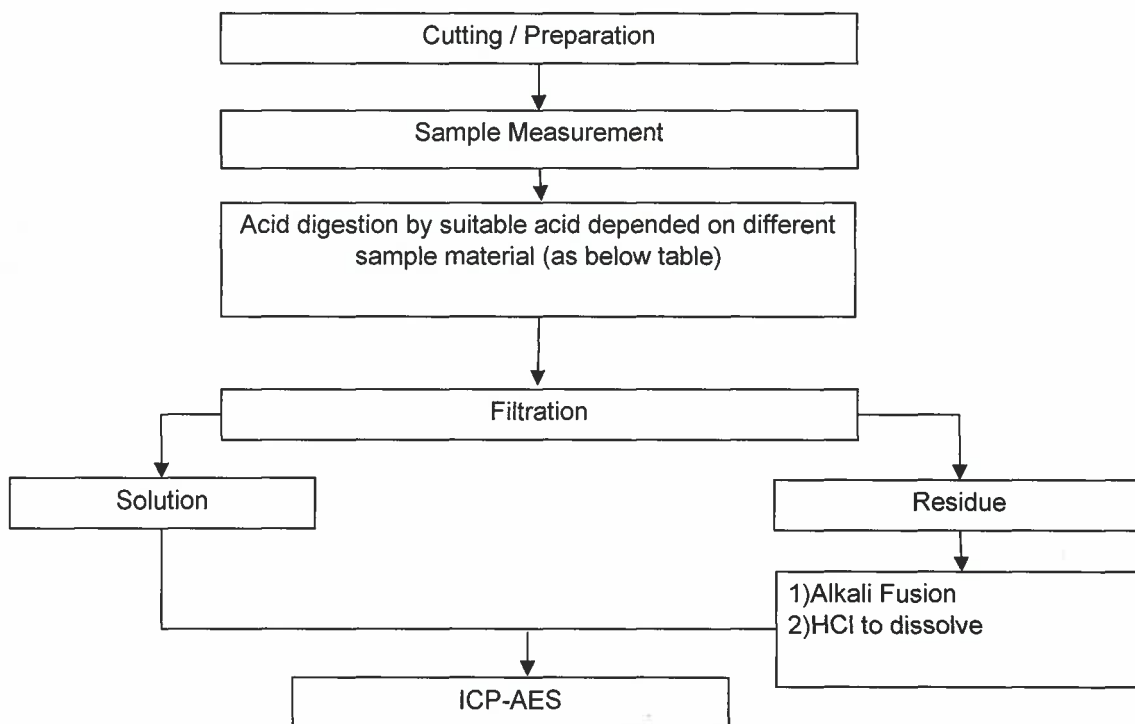
Date : 2008/01/02

Page : 6 of 7



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) Name of the person who made measurement: Hungming Li
- 3) Name of the person in charge of measurement: George Huang

Method 1: Flow Chart of Digestion for Cd · Pb analysis



Steel, copper, aluminum, solder	Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
Glass	HNO ₃ /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO ₃
Plastic	H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
Others	Any acid to total digestion

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Page : 7 of 7

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** End of Report **

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