

# Test Report No. : CR/2010/50166A Date : 2010/12/13 Page : 1 of 6

KUANG LUNG SHING CORPORATION www.kls.com.tw 3F, No. 295, Sec.2, Hsingren Rd., Chungli, Taoyuan, Taiwan

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

Sample Description Style/Item No. Sample Receiving Date Testing Period	:	POLY U COLOR® U-301 BLACK 2010/05/13 2010/05/13 TO 2010/05/20
Test Result(s)	:	Please refer to next page(s).



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## Test Result(s)

PART NAME NO.1 : BLACK PASTE

Test Item (s):	Unit	Method	MDL	Result	
rest tient (s).	Unit			No.1	
Anthracene (CAS No.: 000120-12-7)	mg/kg	With reference to ZEK 01.2-08. Analyzed by GC/MS.	0.2	n.d.	
4,4' - Diaminodiphenylmethane (CAS No.: 000101-77-9)	mg/kg	With reference to EN 14362-1: 2003. Analyzed by GC/MS.	3	n.d.	
BBP (Benzyl butyl phthalate) (CAS No.: 000085-68-7)	%	With reference to EN 14372. Analyzed by GC/MS.	0.003	n.d.	
DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 000117-81-7)	%	With reference to EN 14372. Analyzed by GC/MS.	0.003	n.d.	
5-tert-butyl-2,4,6-trinitro- m-xylene (Musk Xylene) (CAS No.: 000081-15-2)	mg/kg	With reference to US EPA 3550C: 1996. Analyzed by GC/MS.	10	n.d.	
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ - HBCDD, $\beta$ - HBCDD, $\gamma$ - HBCDD) (CAS No.: 025637-99-4 and 003194-55-6 (134237-51-7, 134237-50- 6, 134237-52-8))	mg/kg	With reference to US EPA 3540C: 1996. Analyzed by GC/MS.	5	n.d.	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (CAS No.: 085535-84-8)	mg/kg	With reference to US EPA 3540C: 1996. Analyzed by GC/MS.	100	n.d.	
Bis(tributyItin)oxide*** (CAS No.: 000056-35-9)	mg/kg	With reference to ISO 17353: 2004. Analyzed by GC/FPD.***	-	n.d.	
Cobalt dichloride (CAS No.: 007646-79-9)	mg/kg	SGS In-House method-RSTS-EE-SVHC- 003, RSTS-EE-SVHC-004. Analyzed by ICP-AES.	5	n.d.	
Diarsenic pentaoxide*** (CAS No.: 001303-28-2)	mg/kg	With reference to US EPA 3052: 1996. Analyzed by ICP-AES.***	-	n.d.	
Diarsenic trioxide*** (CAS No.: 001327-53-3)	mg/kg	With reference to US EPA 3052: 1996. Analyzed by ICP-AES.***	-	n.d.	
Triethyl arsenate*** (CAS No.: 015606-95-8)	mg/kg	With reference to US EPA 3052: 1996. Analyzed by ICP-AES.***	-	n.d.	

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Result Test Item (s): Unit Method MDL No.1 Lead hydrogen arsenate\*\*\* With reference to US EPA 3052: 1996. mg/kg n.d. \_ (CAS No.: 007784-40-9) Analyzed by ICP-AES.\*\*\* Sodium dichromate\*\*\* With reference to US EPA 3060A: 1996. mg/kg n.d. \_ (CAS No.: 010588-01-9(\*)) Analyzed by UV-Vis.\*\*\* Anthracene oil (CAS No.: 090640-80-5) With reference to ZEK 01.2-08. Analyzed 500 mg/kg n.d. by GC/MS. (\*\*) With reference to ZEK 01.2-08. Analyzed Anthracene oil, anthracene paste, distn. mg/kg 500 n.d. Lights (CAS No.: 091995-17-4) (\*\*) by GC/MS. Anthracene oil, anthracene paste, With reference to ZEK 01.2-08. Analyzed 500 mg/kg n.d. anthracene fraction (CAS No.: 091995by GC/MS. 15-2) (\*\*) Anthracene oil, anthracene-low (CAS mg/kg With reference to ZEK 01.2-08. Analyzed 500 n.d. No.: 090640-82-7) (\*\*) by GC/MS. Anthracene oil, anthracene paste (CAS With reference to ZEK 01.2-08. Analyzed mg/kg 500 n.d. No.: 090640-81-6) (\*\*) by GC/MS. Pitch, coal tar, high-temp. (CAS No.: With reference to ZEK 01.2-08. Analyzed 500 mg/kg n.d. 065996-93-2) (\*\*) by GC/MS. Aluminosilicate, Refractory Ceramic SGS In-House method-RSTS-EE-SVHC-500 n.d. mg/kg 003. RSTS-EE-SVHC-004. Analyzed by Fibres gravimetric method, ICP-AES. SGS In-House method-RSTS-EE-SVHC-Zirconia Aluminosilicate, Refractory 500 n.d. mg/kg Ceramic Fibres 003, RSTS-EE-SVHC-004. Analyzed by gravimetric method, ICP-AES. DIBP (Di-isobutyl phthalate) (CAS No .: With reference to EN 14372. Analyzed by 30 n.d. mg/kg 000084-69-5) GC/MS. 2,4-Dinitrotoluene (CAS No.: 000121-With reference to US EPA 3550C mg/kg 50 n.d. method. Analysis was performed by 14-2) GC/MS. With reference to US EPA 3550C Tris(2-chloroethyl) phosphate (TCEP) mg/kg 50 n.d. (CAS No.: 000115-96-8) method. Analysis was performed by GC/MS. SGS In-House method-RSTS-EE-SVHC-Lead chromate (CAS No.: 007758-97-6) mg/kg 100 n.d. 003, RSTS-EE-SVHC-004. Analyzed by UV-VIS, ICP-AES.

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Result Test Item (s): Unit Method MDL No.1 Lead chromate molybdate sulphate red SGS In-House method-RSTS-EE-SVHC-100 mg/kg n.d. 003, RSTS-EE-SVHC-004. Analyzed by (C.I. Pigment Red 104) (CAS No.: 012656-85-8) UV-VIS, ICP-AES. Lead sulfochromate yellow (C.I. SGS In-House method-RSTS-EE-SVHC-100 mg/kg n.d. Pigment Yellow 34) (CAS No.: 001344-003, RSTS-EE-SVHC-004. Analyzed by 37-2) UV-VIS, ICP-AES. With reference to US EPA 3550C Acrylamide (CAS No.: 000079-06-1) mg/kg 50 n.d. method. Analysis was performed by LC/MS.

### Note :

- 1. mg/kg = ppm; 0.1wt% = 1000ppm
- 2. n.d.= not detected = below Method detection Limit
- 3. MDL = Method Detection Limit
- 4. " " = Not Regulated
- 5. (\*): conc. of Sodium dichromate dihydrate (CAS No.: 007789-12-0) = conc. of sodium dichromate  $\times$  1.1374
- 6. (\*\*): The concentrations of above-mentioned mixtures are evaluated per the gained composition rate between the selected marks and the mixtures.
- 7. \*\*\*: The substance was calculated by the test results of Tributyl Tin or element
  - (Ex. Arsenic, Lead or Cr(VI) respectively).

The MDL is evaluated for Tributyl Tin or element (Ex. Arsenic, Lead or Cr(VI) respectively).

AX	Α	F	
Diarsenic pentaoxide		1.5339	
Diarsenic trioxide	Arsenic	1.3203	
Triethyl arsenate	Arsenic	3.0179	
Lead hydrogen arsenate		4.6332	
Lead Hydrogen arsenate	Lead	1.6753	
Sodium dichromate	Hexavalent Chromium Cr(VI)	2.5192	
Bis(tributyItin)oxide	Tributyl Tin (TBT)	1.0276	

### $AX = A \times F$

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Regarding lead hydrogen arsenate lead and arsenic are tested and used for the calculation of the separated concentration of lead hydrogen arsenate. The final concentration of lead hydrogen arsenate for the report uses the minimum value of above-mentioned two concentration of lead hydrogen arsenate.

### The test result is given as:

Test Item (s):	Unit	Method	MDL	Result
				No.1
Tributyl Tin (TBT) (CAS No.: 000688-73-3)	mg/kg	With reference to ISO 17353: 2004. Analyzed by GC/FPD.	0.03	n.d.
Arsenic (As)	mg/kg	With reference to US EPA 3052: 1996. Analyzed by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to US EPA 3052: 1996. Analyzed by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI)	mg/kg	With reference to US EPA 3060A: 1996. Analyzed by UV-Vis.	2	n.d.

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\*\* End of Report \*\*

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