

TEST REPORT

KOTITI NO. : 1111006725
APPLICANT : NEO REFLECTION
DATE IN : March 29, 2011
DATE OUT : April 7, 2011

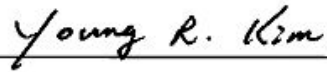
Sample Description	ONE (1) SAMPLE
Item	POLYMER PART
Buyer	N/S
Style Number	N/S
P.O. Number	N/S
Color(s) Submitted	(A) WHITE PLASTIC, (B) CLEAR PLASTIC, (C) BLACK SPONGE
Submitted Fiber Composition	N/S
Submitted Care Instruction	N/S
Test Result	For further details, please refer to the following page(s).

* N/S : Not Submitted

PREPARED and CHECKED by :


DR. SANG RAG LEE
 DIRECTOR – KOTITI

AUTHORIZED by :


DR. YOUNG RYUL KIM
 DIRECTOR GENERAL – KOTITI

REMARK: SEE ENCLOSED WORKSHEET(S) RESULT

Contact information for technical questions and general inquiries.

· Prepared by : Hyang Mee Park (822) 3451 7065 hm_park@kotiti.re.kr
 · Primary contact : Joung Wook Lee (822) 3451 7049 jwlee@kotiti.re.kr
 · Back-up : Jin Chun Kim (822) 3451 7110 jc_kim@kotiti.re.kr

Substances of Very High Concern(SVHC)

REACH Regulation (EC) No 1907/2006

<Unit : mg/kg>

	Substance Name	CAS No.	Testing Method	Result		
				(A)	(B)	(C)
1	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	Textile in general: EN14362-1 reporting limit: 50 mg/kg	ND	ND	ND
2	Anthracene	120-12-7	Extraction with organic solvent, determination by GC/MS, US EPA 8270D reporting limit : 50 mg/kg	ND	ND	ND
3	Dibutyl phthalate (DBP)	117-81-7	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND	ND	ND
4	Bis (2-ethylhexyl) phthalate (DEHP)	85-68-7	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND	ND	ND
5	Benzyl butyl phthalate (BBP)	84-74-2	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND	ND	ND
6	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-Hexabromocyclododecane Beta - Hexabromocyclododecane Gamma-Hexabromocyclododecane	3194-55-6	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
7	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
8	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	Extraction with organic solvent, determination by GC/MS reporting limit: 200 mg/kg	ND	ND	ND
9	Bis(tributyltin)oxide (TBTO)	56-35-9	Microwave digestion method reporting limit: 50 mg/kg	ND	ND	ND
10	Cobalt dichloride	7646-79-9	Microwave digestion method reporting limit: 100mg/kg	ND	ND	ND
11	Diarsenic pentaoxide	1303-28-2	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
12	Diarsenic trioxide	1327-53-3	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
13	Sodium dichromate	7789-12-0	DIN 53314(Mod.) reporting limit: 100 mg/kg	ND	ND	ND
14	Lead hydrogen arsenate	7784-40-9	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
15	Triethyl arsenate	15606-95-8	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
16	Anthracene oil	90640-80-5	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND	ND	ND
17	Anthracene oil, anthracene paste, distn. Lights	91995-17-4	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND	ND	ND

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<Unit : mg/kg>

	Substance Name	CAS No.	Testing Method	Result		
				(A)	(B)	(C)
18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND	ND	ND
19	Anthracene oil, anthracene, anthracene-low	90640-82-7	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND	ND	ND
20	Anthracene oil, anthracene, anthracene paste	90640-81-6	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND	ND	ND
21	Coal tar pitch, high temperature	65996-93-2	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND	ND	ND
22	Aluminosilicate	-	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
23	Zirconia Aluminosilicate	-	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
24	2,4-Dinitrotoluene	121-14-2	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
25	Diisobutyl phthalate	84-69-5	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND	ND	ND
26	Lead chromate	7758-97-6	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
27	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
28	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
29	Tris(2-chloroethoxy)phosphate (TCEP)	115-96-8	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
30	Acrylamide	79-06-1	Extraction with organic solvent, determination by GC/MS reporting limit : 50mg/kg	ND	ND	ND
31	1,1,2-Trichloroethylene [mg/kg]	79-01-6	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
32	Boric Acid [mg/kg]	10043-35-3;11113-50-1	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
33	Disodium tetraborate Anhydrous [mg/kg]	1330-43-4;12179-04-3	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
34	Tetraboron disodium heptaoxide, hydrate[mg/kg]	12267-73-1	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
35	Sodium chromate[mg/kg]	7775-11-3	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND

Substances of Very High Concern(SVHC)

REACH Regulation (EC) No 1907/2006

<Unit : mg/kg>

	Substance Name	CAS No.	Testing Method	Result		
				(A)	(B)	(C)
36	Potassium chromate[mg/kg]	7789-00-6	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
37	Ammonium dichromate[mg/kg]	7789-09-5	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
38	Potassium dichromate[mg/kg]	7778-50-9	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
39	cobalt(II) sulphate	10124-43+3	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
40	Cobalt(II) dinitrate	10141-05-6	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
41	Cobalt(II) carbonate	513-79-1	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
42	Cobalt(II) diacetate	71-48-7	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
43	2-methoxyethanol	109-86-4	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
44	2-ethoxyethanol	110-80-5	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
45	Chromium trioxide	1333-82-0	Microwave digestion method reporting limit: 100 mg/kg	ND	ND	ND
46	Acids generated from chromium trioxide and their oligomers		Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND	ND
	-Group containing	7738-94-5				
	-Chromic acid	13530-68-2				
	-Oligomers of chromic acid and dichromic acid					

*ND=Not Detected

Picture



TEST REPORT

KOTITI NO. : 1111006725-2
APPLICANT : NEO REFLECTION
DATE IN : March 29, 2011
DATE OUT : April 7, 2011


Sample Description	ONE (1) SAMPLE
Item	PCB PART
Buyer	N/S
Style Number	N/S
P.O. Number	N/S
Color(s) Submitted	N/S
Submitted Fiber Composition	N/S
Submitted Care Instruction	N/S
Test Result	For further details, please refer to the following page(s).

* N/S : Not Submitted

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REMARK: SEE ENCLOSED WORKSHEET(S) RESULT

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REACH Regulation (EC) No 1907/2006

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	Substance Name	CAS No.	Testing Method	Result
1	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	Textile in general: EN14362-1 reporting limit: 50 mg/kg	ND
2	Anthracene	120-12-7	Extraction with organic solvent, determination by GC/MS, US EPA 8270D reporting limit : 50 mg/kg	ND
3	Dibutyl phthalate (DBP)	117-81-7	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND
4	Bis (2-ethylhexyl) phthalate (DEHP)	85-68-7	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND
5	Benzyl butyl phthalate (BBP)	84-74-2	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND
6	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-Hexabromocyclododecane Beta - Hexabromocyclododecane Gamma-Hexabromocyclododecane	3194-55-6	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
7	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
8	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	Extraction with organic solvent, determination by GC/MS reporting limit: 200 mg/kg	ND
9	Bis(tributyltin)oxide (TBTO)	56-35-9	Microwave digestion method reporting limit: 50 mg/kg	ND
10	Cobalt dichloride	7646-79-9	Microwave digestion method reporting limit: 100mg/kg	ND
11	Diarsenic pentaoxide	1303-28-2	Microwave digestion method reporting limit: 100 mg/kg	ND
12	Diarsenic trioxide	1327-53-3	Microwave digestion method reporting limit: 100 mg/kg	ND
13	Sodium dichromate	7789-12-0	DIN 53314(Mod.) reporting limit: 100 mg/kg	ND
14	Lead hydrogen arsenate	7784-40-9	Microwave digestion method reporting limit: 100 mg/kg	ND
15	Triethyl arsenate	15606-95-8	Microwave digestion method reporting limit: 100 mg/kg	ND
16	Anthracene oil	90640-80-5	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND
17	Anthracene oil, anthracene paste, distn. Lights	91995-17-4	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND

Substances of Very High Concern(SVHC)

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<Unit : mg/kg>

	Substance Name	CAS No.	Testing Method	Result
18	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND
19	Anthracene oil, anthracene, anthracene-low	90640-82-7	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND
20	Anthracene oil, anthracene, anthracene paste	90640-81-6	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND
21	Coal tar pitch, high temperature	65996-93-2	Extraction with organic solvent, determination by GC/MS reporting limit: 1000 mg/kg	ND
22	Aluminosilicate	-	Microwave digestion method reporting limit: 100 mg/kg	ND
23	Zirconia Aluminosilicate	-	Microwave digestion method reporting limit: 100 mg/kg	ND
24	2,4-Dinitrotoluene	121-14-2	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
25	Diisobutyl phthalate	84-69-5	Extraction with THF/ACN and analysis by HPLC-DAD-MS, confirmation test for DBP using GC/MS Reporting limit : 50 mg/kg	ND
26	Lead chromate	7758-97-6	Microwave digestion method reporting limit: 100 mg/kg	ND
27	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8	Microwave digestion method reporting limit: 100 mg/kg	ND
28	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Microwave digestion method reporting limit: 100 mg/kg	ND
29	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
30	Acrylamide	79-06-1	Extraction with organic solvent, determination by GC/MS reporting limit : 50mg/kg	ND
31	1,1,2-Trichloroethylene [mg/kg]	79-01-6	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
32	Boric Acid [mg/kg]	10043-35-3;11113-50-1	Microwave digestion method reporting limit: 100 mg/kg	ND
33	Disodium tetraborate Anhydrous [mg/kg]	1330-43-4;12179-04-3	Microwave digestion method reporting limit: 100 mg/kg	ND
34	Tetraboron disodium heptaoxide, hydrate[mg/kg]	12267-73-1	Microwave digestion method reporting limit: 100 mg/kg	ND
35	Sodium chromate[mg/kg]	7775-11-3	Microwave digestion method reporting limit: 100 mg/kg	ND

Substances of Very High Concern(SVHC)

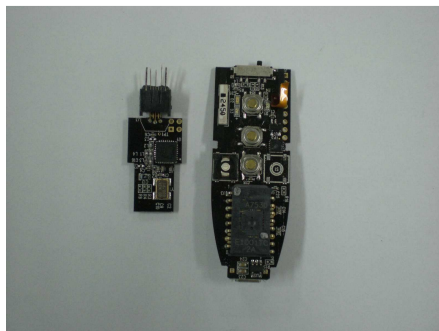
REACH Regulation (EC) No 1907/2006

<Unit : mg/kg>

	Substance Name	CAS No.	Testing Method	Result
36	Potassium chromate[mg/kg]	7789-00-6	Microwave digestion method reporting limit: 100 mg/kg	ND
37	Ammonium dichromate[mg/kg]	7789-09-5	Microwave digestion method reporting limit: 100 mg/kg	ND
38	Potassium dichromate[mg/kg]	7778-50-9	Microwave digestion method reporting limit: 100 mg/kg	ND
39	cobalt(II) sulphate	10124-43+3	Microwave digestion method reporting limit: 100 mg/kg	ND
40	Cobalt(II) dinitrate	10141-05-6	Microwave digestion method reporting limit: 100 mg/kg	ND
41	Cobalt(II) carbonate	513-79-1	Microwave digestion method reporting limit: 100 mg/kg	ND
42	Cobalt(II) diacetate	71-48-7	Microwave digestion method reporting limit: 100 mg/kg	ND
43	2-methoxyethanol	109-86-4	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
44	2-ethoxyethanol	110-80-5	Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
45	Chromium trioxide	1333-82-0	Microwave digestion method reporting limit: 100 mg/kg	ND
46	Acids generated from chromium trioxide and their oligomers		Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND
	-Group containing	7738-94-5		
	-Chromic acid	13530-68-2		
	-Dichromic acid			
	-Oligomers of chromic acid and dichromic acid			

*ND=Not Detected

Picture



TEST REPORT

KOTITI NO. : 1111006725-3
APPLICANT : NEO REFLECTION
DATE IN : March 29, 2011
DATE OUT : April 7, 2011

Sample Description	ONE (1) SAMPLE
Item	METAL PART
Buyer	N/S
Style Number	N/S
P.O. Number	N/S
Color(s) Submitted	(A) SILVERY/ COPPERY PLATED SILVERY METAL, (B) SOLDER
Submitted Fiber Composition	N/S
Submitted Care Instruction	N/S
Test Result	For further details, please refer to the following page(s).

* N/S : Not Submitted

PREPARED and CHECKED by :

Sang Rag Lee

DR. SANG RAG LEE
 DIRECTOR – KOTITI

AUTHORIZED by :

Young R. Kim

DR. YOUNG RYUL KIM
 DIRECTOR GENERAL – KOTITI

REMARK: SEE ENCLOSED WORKSHEET(S) RESULT

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Substances of Very High Concern(SVHC)

REACH Regulation (EC) No 1907/2006

<Unit : mg/kg>

	Substance Name	CAS No.	Testing Method	Result	
				(A)	(B)
1	Cobalt dichloride	7646-79-9	Microwave digestion method reporting limit: 100mg/kg	ND	ND
2	Diarsenic pentaoxide	1303-28-2	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
3	Diarsenic trioxide	1327-53-3	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
4	Sodium dichromate	7789-12-0	DIN 53314(Mod.) reporting limit: 100 mg/kg	ND	ND
5	Lead hydrogen arsenate	7784-40-9	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
6	Triethyl arsenate	15606-95-8	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
7	Aluminosilicate	-	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
8	Zirconia Aluminosilicate	-	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
9	Lead chromate	7758-97-6	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
10	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
11	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
12	Boric Acid [mg/kg]	10043-35- 3;11113-50- 1	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
13	Tetraboron disodium heptaoxide, hydrate[mg/kg]	12267-73-1	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
14	Sodium chromate[mg/kg]	7775-11-3	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
15	Potassium chromate[mg/kg]	7789-00-6	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
16	Ammonium dichromate[mg/kg]	7789-09-5	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
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REACH Regulation (EC) No 1907/2006

<Unit : mg/kg>

	Substance Name	CAS No.	Testing Method	Result	
				(A)	(B)
20	Cobalt(II) carbonate	513-79-1	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
21	Cobalt(II) diacetate	71-48-7	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
22	Chromium trioxide	1333-82-0	Microwave digestion method reporting limit: 100 mg/kg	ND	ND
23	Acids generated from chromium trioxide and their oligomers		Extraction with organic solvent, determination by GC/MS reporting limit: 50 mg/kg	ND	ND
	-Group containing	7738-94-5			
	-Chromic acid	13530-68-2			
	-Dichromic acid				
	-Oligomers of chromic acid and dichromic acid				

*ND=Not Detected

Picture

