



CERTIFICATE OF ANALYSIS

To : NIPPON PIGMENT (M) SDN.BHD.
2479, Mk-1, Lorong Perusahaan 8B,
Prai Industrial Estate,
13600 Prai, Pulau Pinang.
Attn.: Ms. Heidi

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Certificate No.: SP /06-06/ 0594

Date of Issue : 28 / 06 / 2006

Client's Sample Description : **DISPERSION AGENT**

Date Of Sample Received : 21 / 06 / 2006

Date Completed Analysis : 28 / 06 / 2006

Analysis parameter and Standard Method / Equipment / Technique description

Parameter	Standard Method / Equipment / Technique Description
1. Cadmium	BS EN 1122 Method B: 2001 Plastic-Determination of Cadmium by wet decomposition method ICP-AES (Inductive Coupled Plasma-Atomic Emission Spectrometry)
2. Lead	USEPA Method 3052 Microwave assisted acid digestion of siliceous and organically based matrices USEPA Method 6010B-Inductive Coupled Plasma-Atomic Emission Spectrometry
3. Mercury	USEPA Method 3052 Microwave assisted acid digestion of siliceous and organically based matrices Cold Vapor technique-Flow Injection Mercury System (FIMS)
4 Chromium Hexavalent	USEPA Method 3060A-Alkaline digestion for Hexavalent Chromium USEPA Method 7196A - Colorimetric by UV/Vis Spectroscopy
5. PBBs	USEPA Method 3540C- Soxhlet Extraction GC/MS-Gas Chromatography-Mass Spectrometry
6. PBDEs	USEPA Method 3540C- Soxhlet Extraction GC/MS-Gas chromatography-Mass Spectrometry

Measurement flowchart

Refer to Appendix 1

JOB NO.: SP606/0565



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Type of Analysis/Parameters/ Properties measured	Analysis Results	Preconditioning Method / Technique	Measurement Method / Equipment
Cadmium (as Cd) ; mg/kg	ND(<0.5)	BS EN 1122 B: 2001	ICP-AES
Lead (as Pb) ; mg/kg	ND(<1)	USEPA Method 3052	USEPA Method 6010B
Mercury (as Hg) ; mg/kg	ND(<1)	USEPA Method 3052	Cold vapor -FIMS
Chromium Hexavalent (as Cr ⁶⁺) ; mg/kg	ND(<1)	USEPA Method 3060A	USEPA Method 7196A

Remark : The test portion was "Totally Dissolved" for Cadmium, Lead & Mercury test by using pre-conditioning method as mentioned above.

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Test perform by : Ms. Tan Hooi Cheng



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Parameter Tested (as stated below) :
Polybrominated Biphenyls (PBBs)

Chemical compound	Analysis Results	Preconditioning Method	Measurement Method
Monobromobiphenyl	Not Detected	USEPA Method 3540C	GC/MS
Dibromobiphenyl	Not Detected		
Tribromobiphenyl	Not Detected		
Tetrabromobiphenyl	Not Detected		
Pentabromobiphenyl	Not Detected		
Hexabromobiphenyl	Not Detected		
Heptabromobiphenyl	Not Detected		
Octabromobiphenyl	Not Detected		
Nonabromobiphenyl	Not Detected		
Decabromobiphenyl	Not Detected		

Method Detection limit is 5 ppm.

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Client's Sample Description : DISPERSION AGENT

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Parameter Tested :
Polybrominated Diphenyl Ethers (PBDEs)

Chemical compound	Results	Preconditioning Method	Measurement Method
Monobromodiphenyl ether	Not Detected	USEPA Method 3540C	GC/MS
Dibromodiphenyl ether	Not Detected		
Tribromodiphenyl ether	Not Detected		
Tetrabromodiphenyl ether	Not Detected		
Pentabromodiphenyl ether	Not Detected		
Hexabromodiphenyl ether	Not Detected		
Heptabromodiphenyl ether	Not Detected		
Octabromodiphenyl ether	Not Detected		
Nonabromodiphenyl ether	Not Detected		
Decabromodiphenyl ether	Not Detected		

Method Detection Limit is 5 ppm.

For NM LABORATORY SDN. BHD.

JOB NO.: SP606/0565

Test perform by : Mr. Chong Kian Wei

Certified By:

Yeap Cheo Mooi, B. Sc (Hons), AMIC
Chemist