

Test Report

No: 10290174(1)

Date: 21-Dec-12

with the RoHS Directive 2011/65/EU Annex II ; recasting 2002/95/EC.

Denka Singapore Pte Ltd 40 Seraya Avenue Singapore 687273

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

Sample Description	:	Clearen 631M / Lot 20907P				
Sample Receiving Date Testing Period	:	13-Dec-12 13-Dec-12 to 21-Dec-12				
Test Requested	:	In accordance with the RoHS Directive 2011/65/EU Annex II.				
Test Result(s)	:	Please refer to next page(s).				
Conclusion	:	Based on the performed tests on submitted sample(s), the results comply				

Signed for and on behalf of SGS Testing & Control Services Singapore Pte Ltd

Y.C. Tham Laboratory Manager

Test Location: 3 Toh Tuck Link, #01-02, Singapore 596228

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SGS Testing & Control Services Singapore Pte Ltd



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Test Result(s):

Sample Description

Clearen 631M / Lot 20907P

Test Item(s):	Unit	Method	Results	MDL	RoHS Limit
Cadmium(Cd)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by ICP/AES	n.d.	2	100
Lead (Pb)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by ICP/AES	n.d.	2	1000
Mercury (Hg)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by ICP/AES	n.d.	2	1000
Hexavalent Chromium (CrVI)	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by UV/Vis Spectrometry	n.d.	2	1000
Sum of PBBs	mg/kg		n.d.	-	1000
Monobromobiphenyl	mg/kg		n.d.	5	-
Dibromobiphenyl	mg/kg		n.d.	5	-
Tribromobiphenyl	mg/kg		n.d.	5	-
Tetrabromobiphenyl	mg/kg	1	n.d.	5	-
Hexabromobiphenyl	mg/kg		n.d.	5	-
Pentabromobiphenyl	mg/kg		n.d.	5	-
Heptabromobiphenyl	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was performed by GC/MS	n.d.	5	-
Octabromobiphenyl	mg/kg		n.d.	5	-
Nonabromobiphenyl	mg/kg		n.d.	5	-
Decabromobiphenyl	mg/kg		n.d.	5	-
Sum of PBDEs	mg/kg		n.d.	-	1000
Monobromodiphenyl ether	mg/kg		n.d.	5	-
Dibromodiphenyl ether	mg/kg		n.d.	5	-
Tribromodiphenyl ether	mg/kg		n.d.	5	-
Tetrabromodiphenyl ether	mg/kg		n.d.	5	-
Pentabromodiphenyl ether	mg/kg		n.d.	5	-
Hexabromodiphenyl ether	mg/kg		n.d.	5	-
Heptabromodiphenyl ether	mg/kg		n.d.	5	-
Octabromodiphenyl ether	mg/kg		n.d.	5	-
Nonabromodiphenyl ether	mg/kg		n.d.	5	-
Decabromodiphenyl ether	mg/kg		n.d.	5	-

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(1) mg/kg = ppm; 0.1wt% = 1000ppm

Note:

(2) n.d.= Not Detected(3) MDL = Method Detection Limit

- (4) "-" = Not regulated
- (5) * : Exceeds limit

Remarks: Sample received was totally dissolved by preconditioning method. Lab Analyst(s): Chin, Jojo and Eileen

Sample photo: Sample Description

Clearen 631M / Lot 20907P

SGS authenticate the photo on original report only

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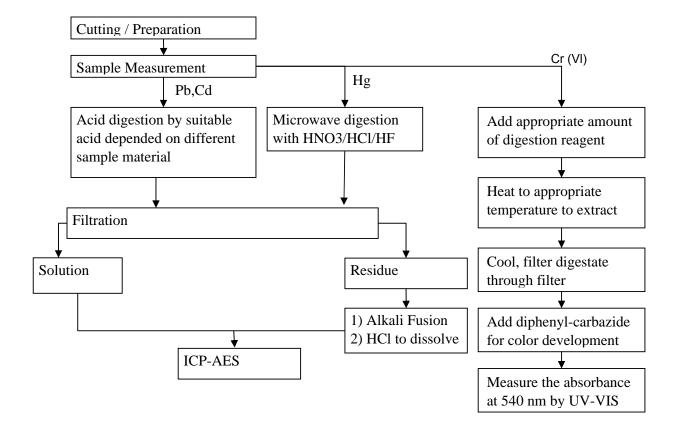


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Process Flow of IEC 62321 (Pb, Cd, Hg & Cr⁶⁺)



Remarks: Sample received was totally dissolved by preconditioning method. (CrVI method excluded)

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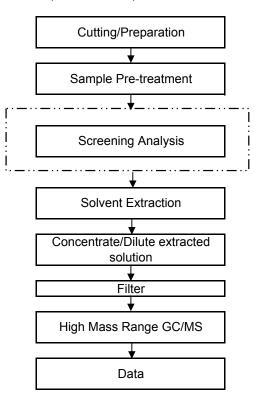


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Process Flow of PBBs and PBDEs by GC/MS (IEC 62321)

First Testing Process \rightarrow Optional screen process Confirmation process \rightarrow



End of Report

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