

Test Report No: 10389941(3) R1 Date: 06-Nov-17 Page 1 of 7

Kester Inc 800W Thorndale Avenue Itasca IL 60143-1341 USA

THIS REPORT IS TO SUPERSEDE TEST REPORT NO.: 10389941(3) DATED 01-Mar-16

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

Sample Name : Kester 2331-ZX

Sample Receiving Date : 23-Feb-16

Testing Period : 23-Feb-16 to 01-Mar-16

Test Requested : In accordance with the Directive (EU) 2015/863 amending Annex II to Directive

2011/65/EU.

Test Result(s) : Please refer to next page(s).

Conclusion : Based on the performed tests on submitted sample(s), the results comply

with the Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

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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Test Result(s):

Sample Description : Colorless liquid

Test Item(s):	Unit	Method	Results	MDL	RoHS Limit
Cadmium(Cd)	mg/kg	With reference to IEC62321-5 :2013. Analysis was performed	n.d.	2	100
		by ICP/AES			
Lead (Pb)	mg/kg	With reference to IEC62321-5 :2013. Analysis was performed by ICP/AES	n.d.	2	1000
Mercury (Hg)	mg/kg	With reference to IEC62321-4 :2013. Analysis was performed by ICP/AES	n.d.	2	1000
Hexavalent Chromium (Cr(VI))	mg/kg	With reference to IEC62321, Ed1:2008. Analysis was	n.d.	2	1000
		performed by UV/Vis Spectrometry			
Sum of PBBs	mg/kg	opeonomeny	n.d.	-	1000
Monobromobiphenyl	mg/kg	1	n.d.	5	-
Dibromobiphenyl	mg/kg	1	n.d.	5	-
Tribromobiphenyl	mg/kg	With reference to IEC62321-6 :2015. Analysis was performed by GC/MS	n.d.	5	-
Tetrabromobiphenyl	mg/kg		n.d.	5	-
Hexabromobiphenyl	mg/kg		n.d.	5	-
Pentabromobiphenyl	mg/kg		n.d.	5	-
Heptabromobiphenyl	mg/kg		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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Test Result(s):

Sample Description : Colorless liquid

Test Item(s):	Unit	Method	Results	MDL	Limit
BBP (Benzyl butyl phthalate)	mg/kg	With reference to USEPA 3540C & 8270D. Analysis was performed by GC/MS	n.d.	30	1000
DBP (Di-butyl phthalate)	mg/kg	With reference to USEPA 3540C & 8270D. Analysis was performed by GC/MS	n.d.	30	1000
DEHP (Di-(2-ethylhexyl) phthalate)	mg/kg	With reference to USEPA 3540C & 8270D. Analysis was performed by GC/MS	n.d.	30	1000
DIBP (Di-isobutyl Phthalate)	mg/kg	With reference to USEPA 3540C & 8270D. Analysis was performed by GC/MS	n.d.	30	1000

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

(2) n.d.= Not Detected

(3) MDL = Method Detection Limit

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

(6) Reference information: The limits of Benzyl butyl phthalate (BBP), Di-butyl phthalate (DBP),

Di-(2-ethylhexyl) phthalate (DEHP), Di-isobutyl phthalate (DIBP) as set by G/TBT/N/EU/256 of WTO/TBT.

Remarks: Sample received was totally dissolved by preconditioning method.

Lab Analyst(s): Chin, Pheng and ZH

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

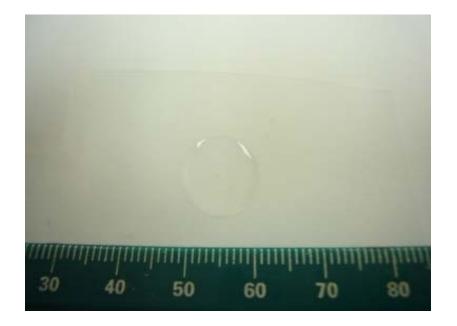


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Sample photo:

Sample Description : Colorless liquid

SGS authenticate the photo on original report only

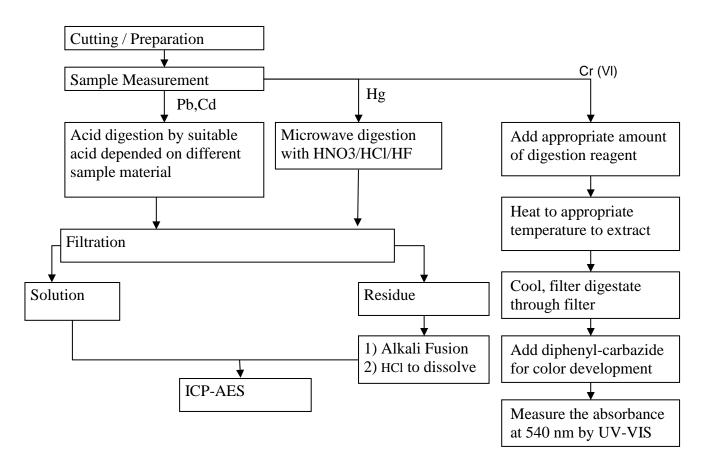


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Process Flow of IEC 62321 (Pb, Cd, Hg & Cr(VI))



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

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

First Testing Process
Optional screen process Confirmation process

Cutting/Preparation

Sample Pre-treatment

Screening Analysis

Solvent Extraction

Concentrate/Dilute extracted solution

Filter

High Mass Range GC/MS

Data

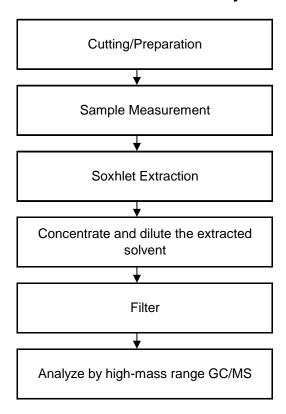
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Process Flow of Phthalate Analysis



End of Report

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