

Test Report

No: 10393719(2)

Date: 14-Apr-16

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

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

Sample Name : 2166-BN Soldering Flux

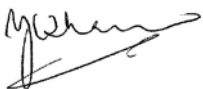
Sample Receiving Date : 07-Apr-16
Testing Period : 07-Apr-16 to 13-Apr-16

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 by ICP/AES	n.d.	2	100
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 performed by UV/Vis Spectrometry	n.d.	2	1000
Sum of PBBs	mg/kg	With reference to IEC62321-6 :2015. Analysis was performed by GC/MS	n.d.	-	1000
Monobromobiphenyl	mg/kg		n.d.	5	-
Dibromobiphenyl	mg/kg		n.d.	5	-
Tribromobiphenyl	mg/kg		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): AQ , Pheng and ZH

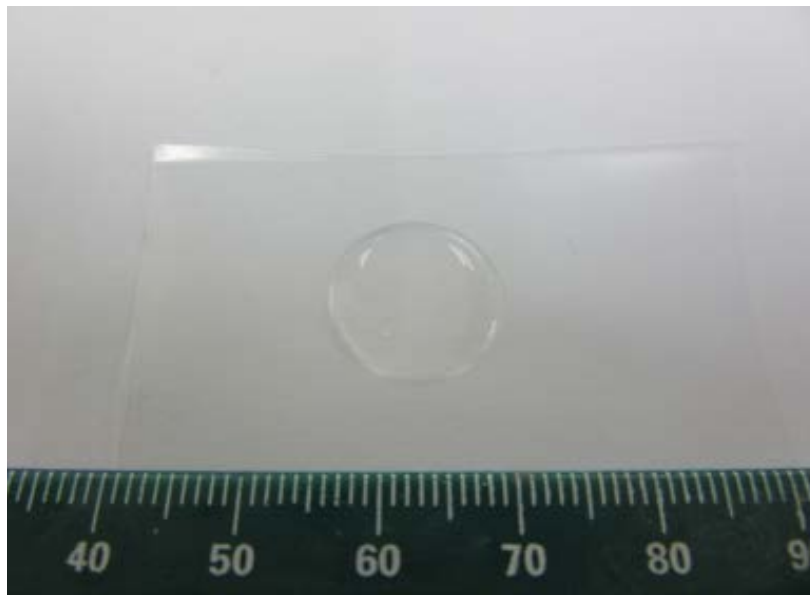
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Sample photo:

Sample Description : Colorless liquid

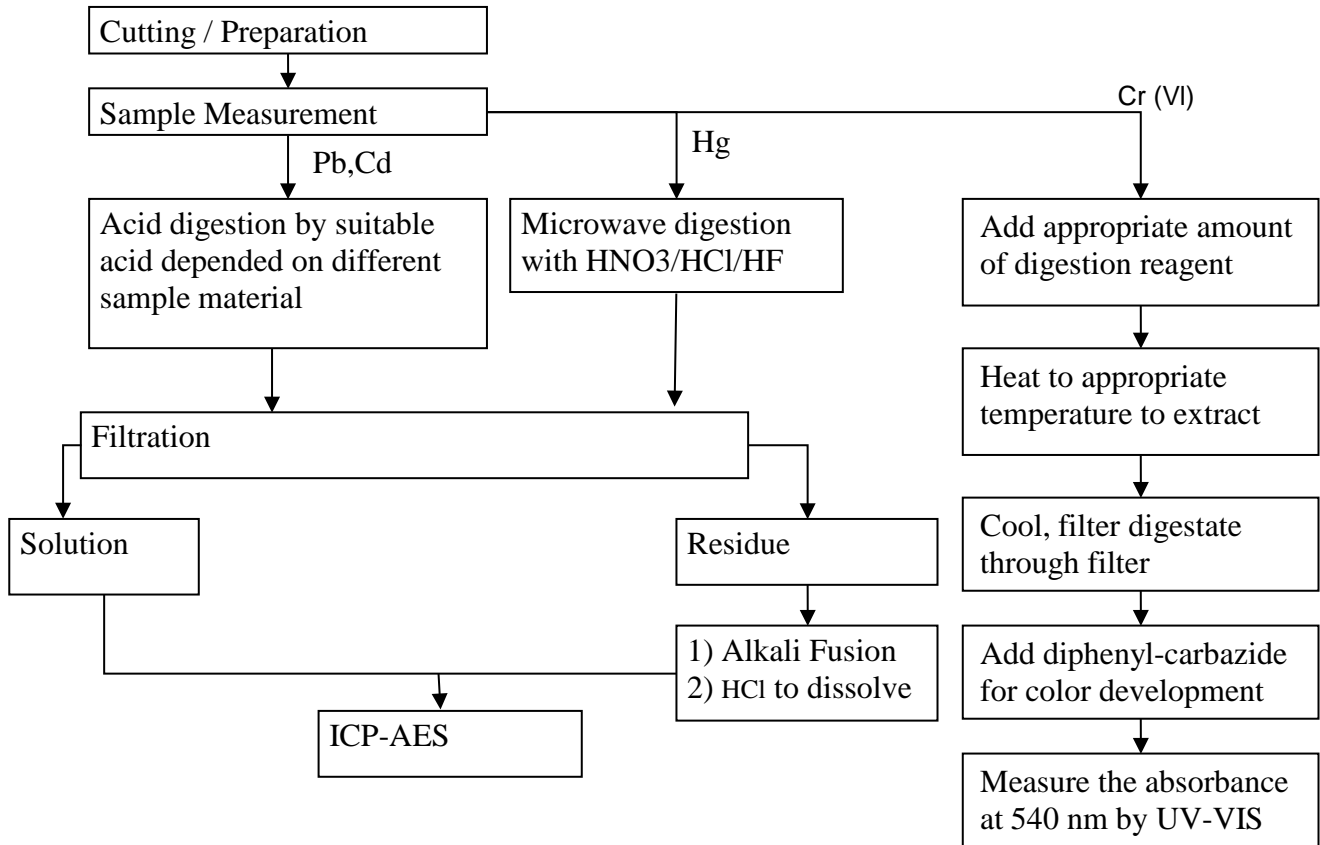
SGS authenticate the photo on original report only



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



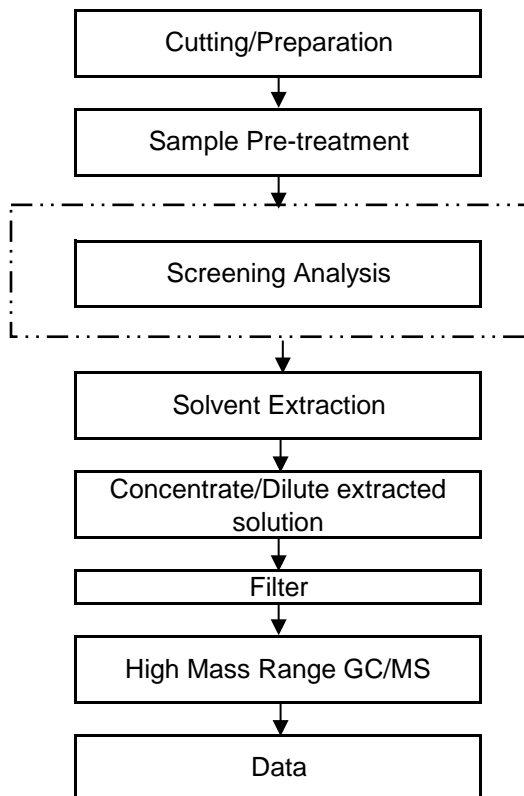
Remarks: Sample received was totally dissolved by preconditioning method. (CrVI method excluded)

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

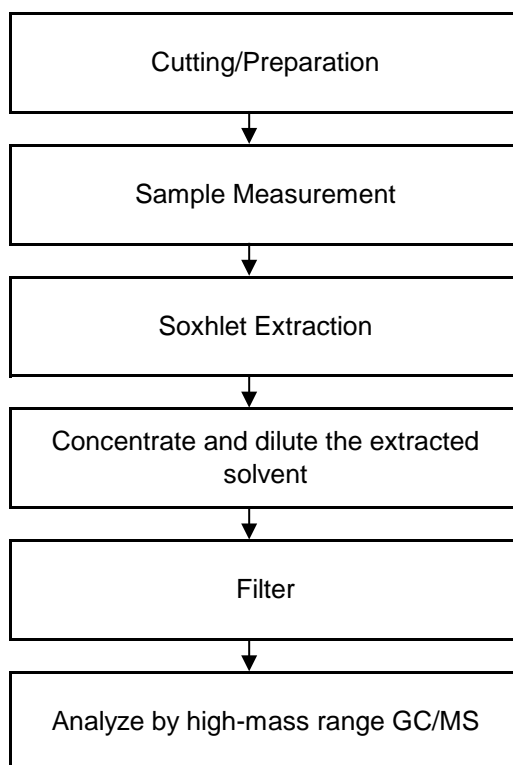
First Testing Process → Optional screen process Confirmation process ...→



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Process Flow of Phthalate Analysis



End of Report

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