

TEST REPORT

Report No. : BG:EE:9510003356

DATE : 22/10/2018



KHANNA TRADERS AND ENGINEERS

D 26 SITE IV
KASNA ROAD GREATER NOIDA
UTTAR PRADESH (09) 201306
INDIA

CONTACT PERSON ANIL KUMAR YADAV

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :

SAMPLE DESCRIPTION PURE TIN
COLOUR GREY
MATERIAL PURE TIN
COUNTRY OF DESTINATION INDIA
COUNTRY OF ORIGIN INDIA
SAMPLE RECD ON 9/10/2018
TEST(S) REQUESTED RoHS 10E

TESTING PERIOD : 12/10/2018 – 17/10/2018

CONCLUSION: Based on the performed tests on submitted sample(s), the results of Cadmium,Lead,Mercury,Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs),Dibutyl Phthalate (DBP), Butyl benzyl Phthalate (BBP), Bis (2-ethylhexyl) Phthalate (DEHP), Diisobutyl Phthalates (DIBP) **comply** with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

per pro SGS India Private Ltd.

Authorized Signatory

S.SasiKumar

(Assistant Manager)

Email your Test Report Related Enquiries at Feedback.HLT@sgs.com

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Test Part Description:

Product No.	Sample No.	Material Description	Remarks
-	1	PURE TIN (GREY)	-

Remarks:

- (1) 1mg/kg=0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (<MDL)
- (4) - = not regulated

RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method:

- (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-MS.
- (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-MS.
- (3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-MS.
- (4) With reference to IEC 62321-7-2:2017, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis and/or with reference to IEC 62321-5:2013, determination of Chromium by ICP-MS.
- (5) With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.
- (6) With reference to IEC 62321-8:2017, determination of Phthalates by GC-MS.

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Test result:

Test Item(s):	Unit	Results	MDL	Limit
		Sample -1		
Cadmium(Cd)	mg/kg	n.d.	5	100
Lead (Pb)	mg/kg	179	5	1000
Mercury (Hg)	mg/kg	n.d.	5	1000
Hexavalent Chromium (CrVI)	µg/cm ²	n.d.	0.10	-
Sum of PBBs	mg/kg	n.d.	-	1000
Monobromobiphenyl	mg/kg	n.d.	50	-
Dibromobiphenyl	mg/kg	n.d.	50	-
Tribromobiphenyl	mg/kg	n.d.	50	-
Tetrabromobiphenyl	mg/kg	n.d.	50	-
Hexabromobiphenyl	mg/kg	n.d.	50	-
Pentabromobiphenyl	mg/kg	n.d.	50	-
Heptabromobiphenyl	mg/kg	n.d.	50	-
Octabromobiphenyl	mg/kg	n.d.	50	-
Nonabromobiphenyl	mg/kg	n.d.	50	-
Decabromobiphenyl	mg/kg	n.d.	50	-
Sum of PBDEs	mg/kg	n.d.	-	1000
Monobromodiphenyl ether	mg/kg	n.d.	50	-
Dibromodiphenyl ether	mg/kg	n.d.	50	-
Tribromodiphenyl ether	mg/kg	n.d.	50	-
Tetrabromodiphenyl ether	mg/kg	n.d.	50	-
Pentabromodiphenyl ether	mg/kg	n.d.	50	-
Hexabromodiphenyl ether	mg/kg	n.d.	50	-
Heptabromodiphenyl ether	mg/kg	n.d.	50	-
Octabromodiphenyl ether	mg/kg	n.d.	50	-
Nonabromodiphenyl ether	mg/kg	n.d.	50	-
Decabromodiphenyl ether	mg/kg	n.d.	50	-
Dibutyl phthalate (DBP)	mg/kg	n.d.	100	1000
Butyl benzyl phthalate (BBP)	mg/kg	n.d.	100	1000
Bis (2-ethylhexyl) phthalate (DEHP)	mg/kg	n.d.	100	1000
Diisobutyl Phthalates (DIBP)	mg/kg	n.d.	100	1000

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Notes:

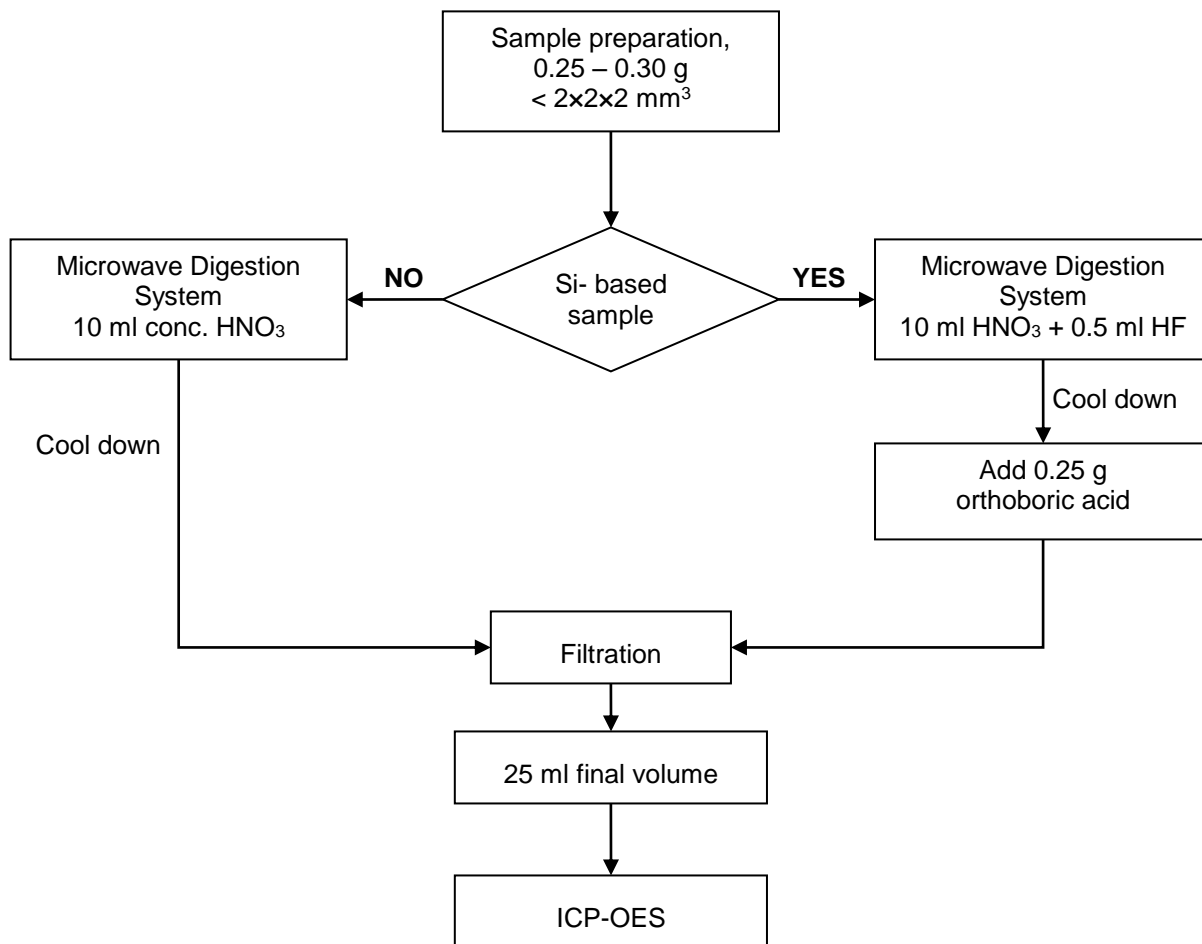
- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863. IEC 62321 series is equivalent to EN 62321 series

http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25
- (2) Test has been performed as per client's request.
- (3) The result of Hexavalent Chromium (Cr(VI)) is "ND" as the result of Chromium (Cr) is "ND", and confirmation test of Hexavalent Chromium (Cr(VI)) is not required.
- (4) If the Chromium (Cr) content is greater than the MDL of Hexavalent Chromium (Cr(VI)), confirmation test of Hexavalent Chromium (Cr(VI)) is required.
- (5) On 4 June 2015, Commission Directive (EU) 2015/863 was published in the Official Journal of the European Union (OJEU) to include the phthalates BBP, DBP, DEHP and DIBP into ANNEX II of the Rohs Recast Directive. The new law restricts each phthalate to no more than 0.1% in each homogeneous material of an electrical product.
- (6) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.
- (7) The restriction of DEHP, BBP, DBP and DIBP shall not apply to cables or spare parts for the repair, the reuse, the updating of functionalities or upgrading of capacity of EEE placed on the market before 22 July 2019, and of medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, placed on the market before 22 July 2021.
- (8) The restriction of DEHP, BBP and DBP shall not apply to toys which are already subject to the restriction of DEHP, BBP and DBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.

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Process Flow for analysis of metal contents in plastics, metals and electronic components sample



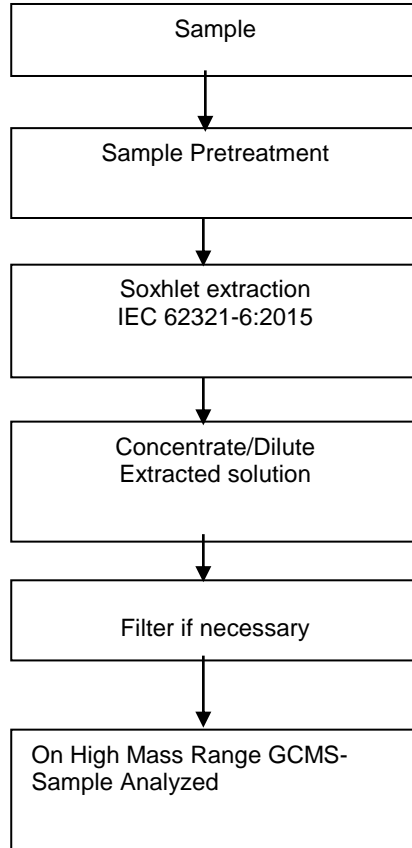
Analyzed By : K Kumar

Checked By : R Jaiganesh

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Process Flow for analysis of Flame Retardants in plastics, metals and electronic components sample

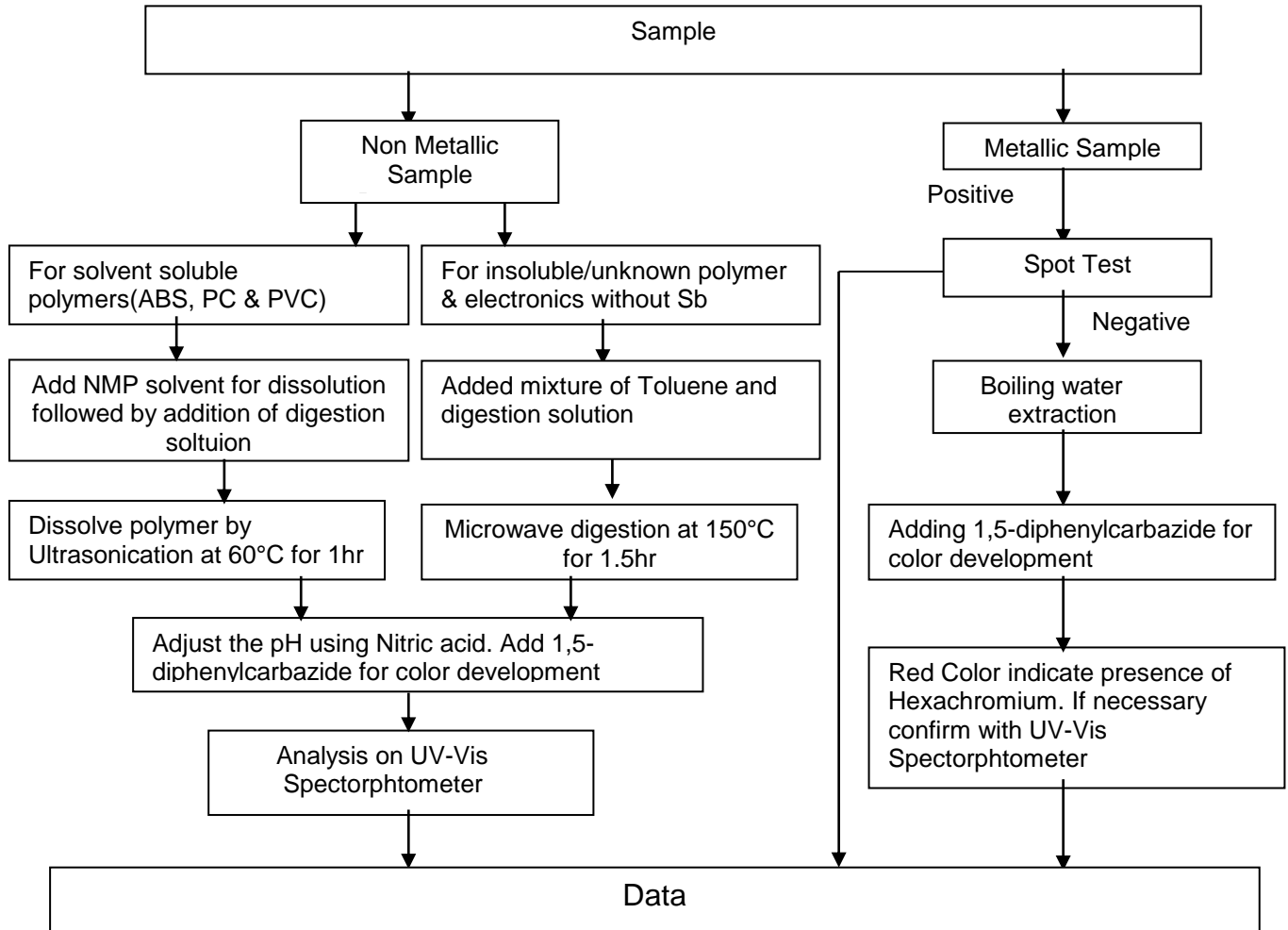


Analyzed By : K Kumar

Checked By : R Jaiganesh



Process Flow for analysis of Hexachromium contents in plastics, metals and electronic components sample



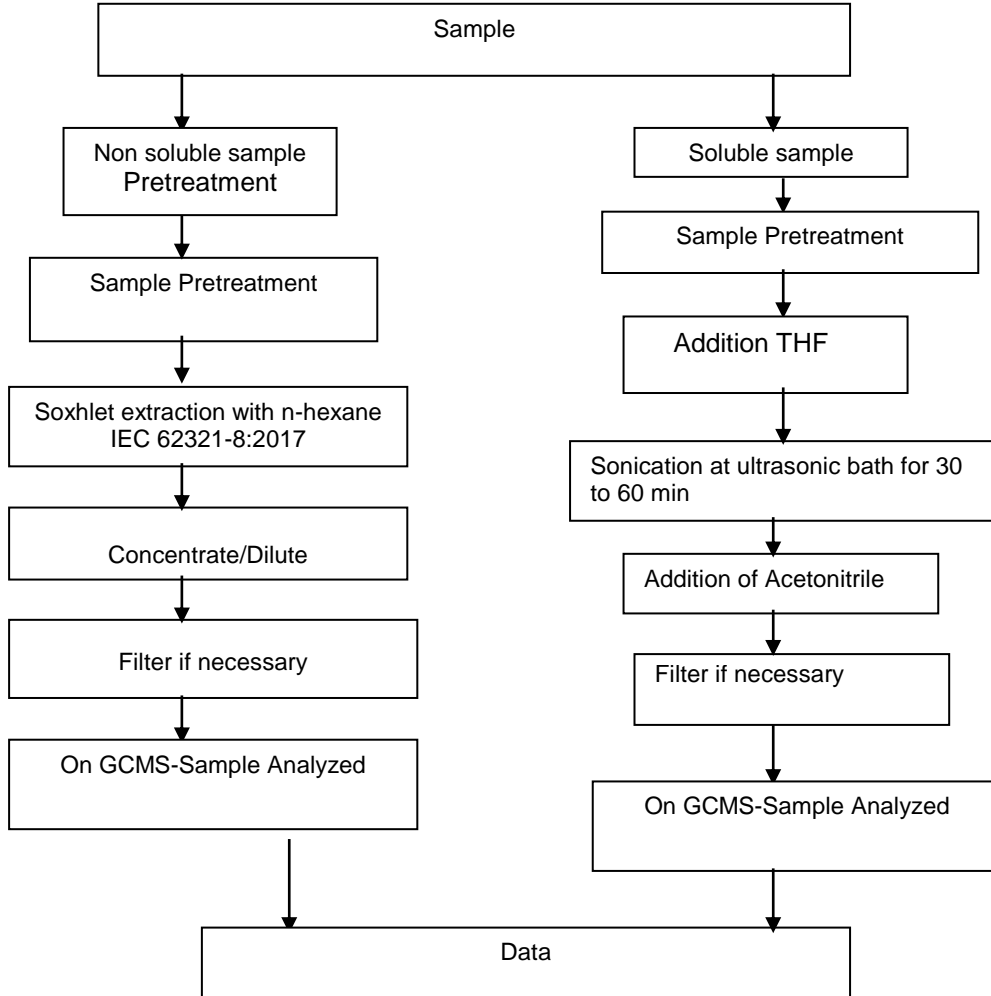
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Process Flow for analysis of Phthalates in Electrotechnical Product As per soxhelt Extraction or THF Extraction:



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Sample Photo: as received



SGS authenticate the photo on original report only
 Note : Above test has been subcontracted to SGS Approved Lab.

*** End of Report ***

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