

TEST REPORT

Report No. : MAN:HL:1348002671

DATE : 28<sup>th</sup> March, 2022



SPINKS INDIA  
 PLOT NO 135 SEC 37 PACE CITY 1 GURUGRAM  
 INDIA  
 CONTACT PERSON :POOJA MISHRA

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

SAMPLE DESCRIPTION FTCH-TX,FTCH-PS,FTCH-KO,FTCH-FJ2,FTCH-FJ3,FTCH-EI  
 LAB IDENTIFIED SAMPLE INK  
 SAMPLE RECD ON 17/03/2022  
 TEST PERFORMING DATE 17/03/2022 TO 28/03/2022

SUMMARY OF TEST RESULT:

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

TEST(S) RESULT & METHOD: PLEASE REFER TO NEXT PAGE(S)

Per Pro SGS India Pvt. Ltd.



SANDIP BHUSHAN (Technical Manager)  
 Authorized Signatory

Email your Test Report Related Enquiries at [Feedback.HLT@sgs.com](mailto:Feedback.HLT@sgs.com)



**Test Part Description:**

Product No.	Sample No.	Material Description	Remarks
1	1	FTCH-TX,FTCH-PS,FTCH-KO,FTCH-FJ2,FTCH-FJ3,FTCH-EI (INK)	--

**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-OES.
- (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
- (3) With reference to IEC 62321-4:2013+A1:2017, determination of Mercury by ICP-OES.
- (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-OES.
- (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.



**TEST RESULTS:**

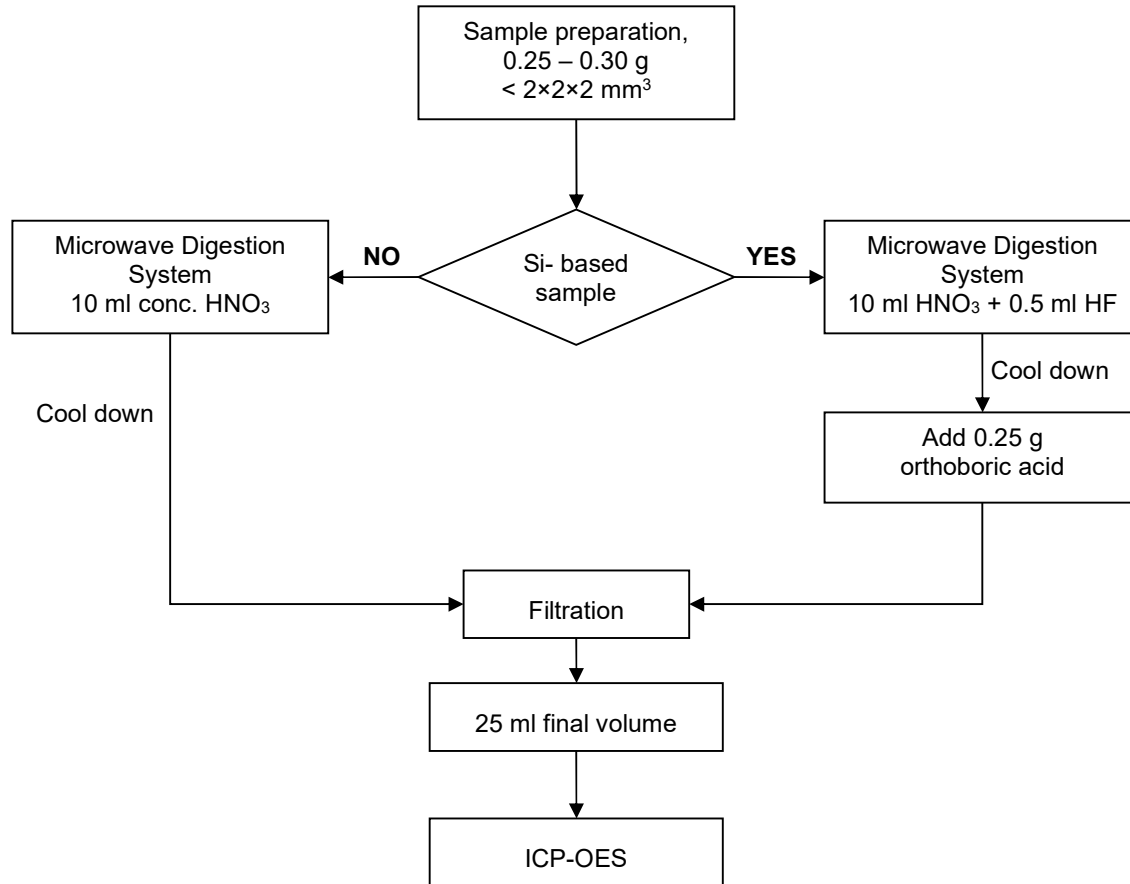
Test Item(s):	Unit	Results	MDL	Limit
Cadmium(Cd)	mg/kg	n.d.	5	100
Lead (Pb)	mg/kg	n.d.	5	1000
Mercury (Hg)	mg/kg	n.d.	5	1000
Hexavalent Chromium (CrVI)	mg/kg	n.d.	8	1000
<b>Sum of PBBs</b>	mg/kg	<b>n.d.</b>	-	1000
Monobromobiphenyl	mg/kg	n.d.	50	-
Dibromobiphenyl	mg/kg	n.d.	50	-
Tribromobiphenyl	mg/kg	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	-
<b>Sum of PBDEs</b>	mg/kg	<b>n.d.</b>	-	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

**Notes:**

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series.  
[https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1258637,25](https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:1258637,25)
- (3) 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.
- (4) Testing has been subcontracted to SGS Gurugram lab.
- (5) Testing has been performed as per customer request.



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

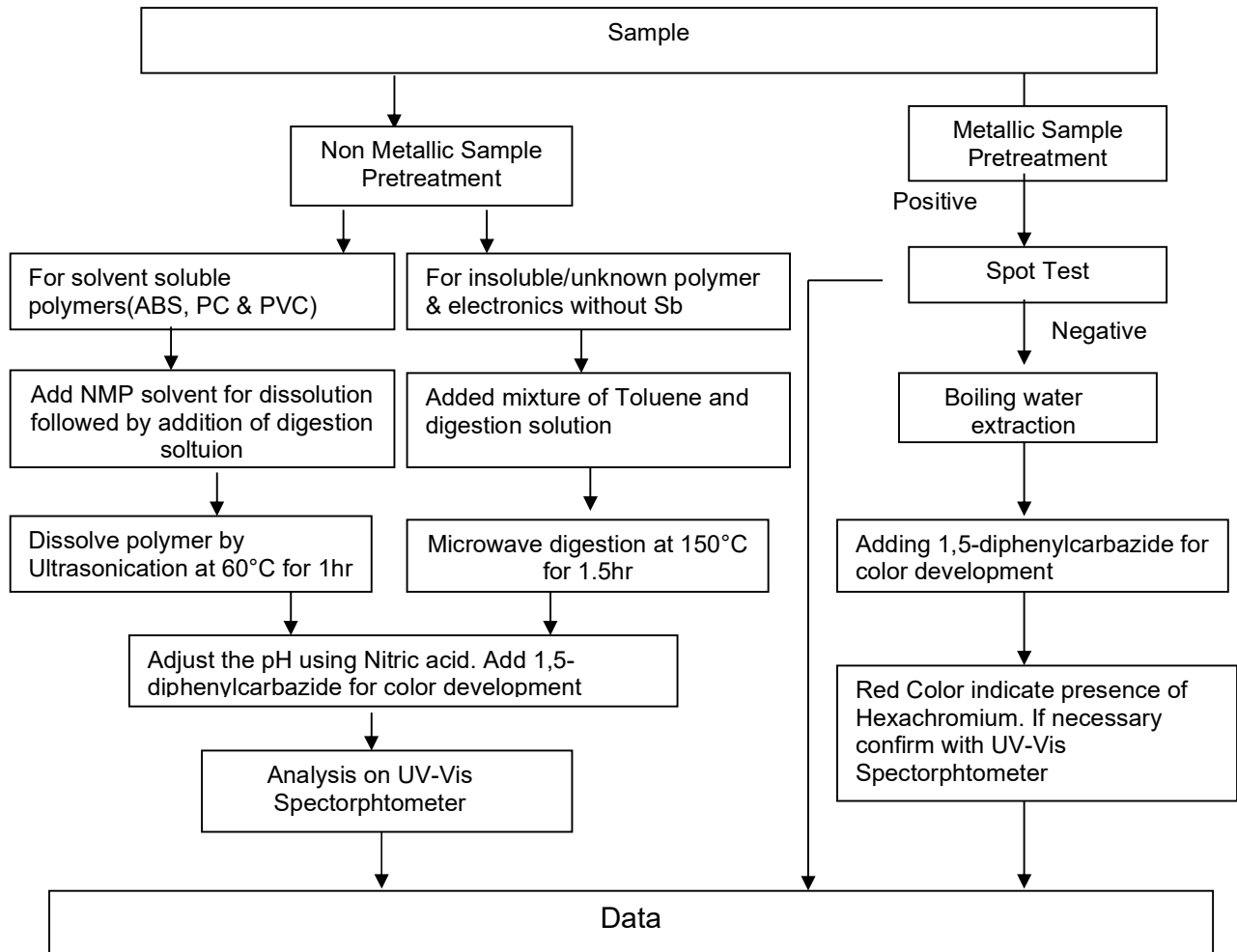


Analyzed By: MD.Taqi

Checked By: Bikram Deo Ohdar



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

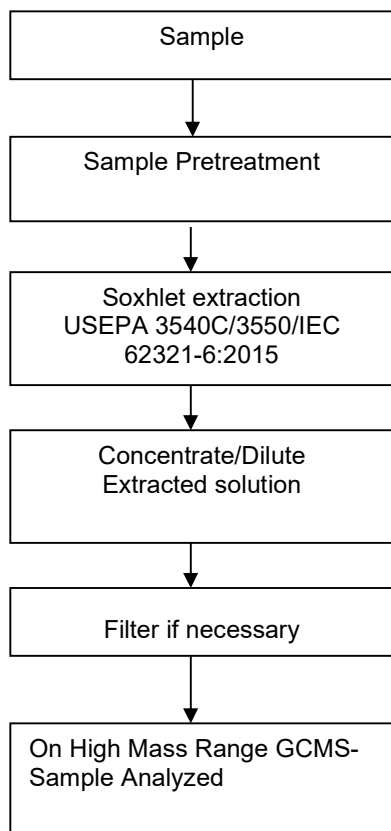


Analyzed By: Rishab Suri

Checked By: Bikram Deo Ohdar



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



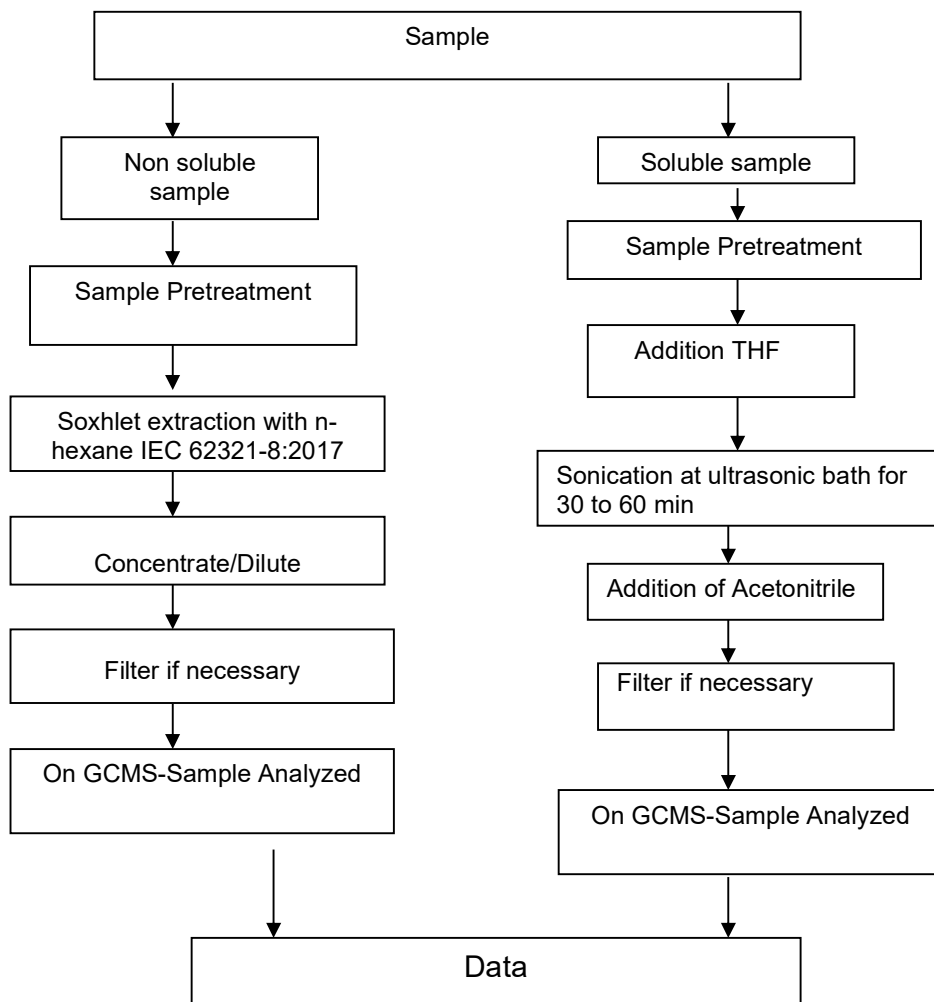
**Analyzed By :** Parvez Alam Siddiqui

**Checked By :** Vijai Chauhan



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

**Extraction:**



**Analyzed By:** Parvez Alam Siddiqui

**Checked By:** Vijai Chauhan





Sample as Received



\*\*\*\*\* END OF REPORT\*\*\*\*\*