

TEST REPORT

Report No. : MAN:TR:1153000717

DATE : 17/01/2020



G K WINDING WIRES LIMITED

B-20 UPSIDC INDUSTRIAL AREA SITE-C

NOIDA-201301

IN

CONTACT PERSON : MR. ANURAG CHAUDHARY.

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

SAMPLE DESCRIPTION IS:440-1964 - COPPER ROD TESTING STANDARD

COUNTRY OF ORIGIN INDIA

SAMPLE RECD ON 06/01/2020

TESTING PERIOD : 13/01/2020 - 14/01/2020

TEST(S) REQUESTED ROHS 10 ELEMENTS TEST

ROHS 10 ELEMENT TEST:

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) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU (Pass for testing on submitted sample)

Per Pro SGS India Private Ltd

Authorized Signatory

Durgesh Pandey

(Sr.Executive)

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

TEST REPORT

Report No. : MAN:TR:1153000717

DATE : 17/01/2020



Test Part Description:

Product No.	Sample No.	Material Description	Remarks
-	1	METAL	-

Remarks:

- (1) 1 mg/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 62321-7-1:2015, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
- (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	n.d.	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:

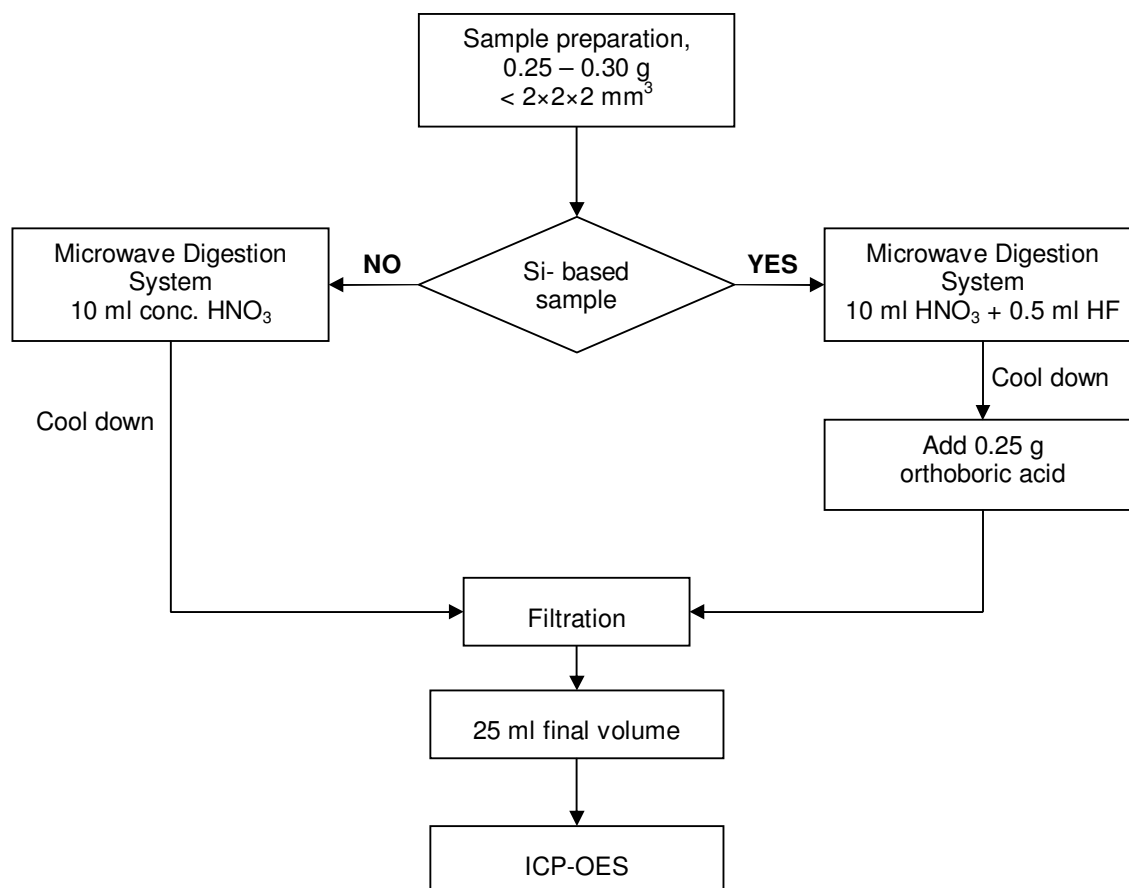
- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
IEC 62321 series is equivalent to EN 62321 series

http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25

- (2) = a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than $0.13 \mu\text{g}/\text{cm}^2$. The sample coating is considered to contain Cr(VI)
b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than $0.10 \mu\text{g}/\text{cm}^2$). The coating is considered a non-Cr(VI) based coating
c. The result between $0.10 \mu\text{g}/\text{cm}^2$ and $0.13 \mu\text{g}/\text{cm}^2$ is considered to be inconclusive - unavoidable coating variations may influence the determination
- (3) 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 and DEHP 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.
- (4) The restriction of DEHP, BBP and DBP 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.
- (5) The restriction of DEHP, BBP and DBP 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.
- (6) 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.



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

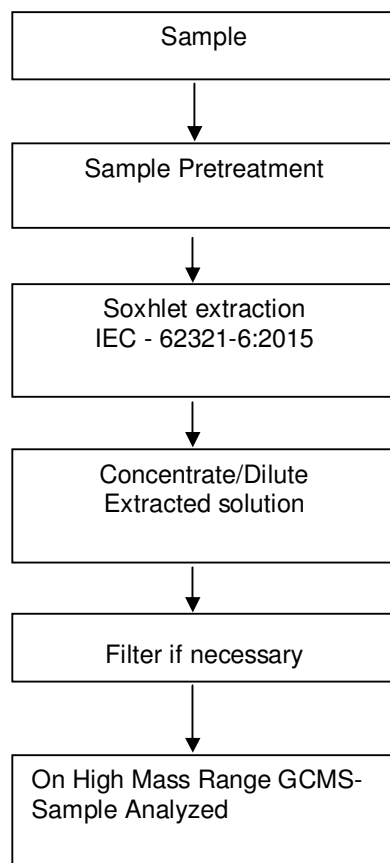


Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute



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

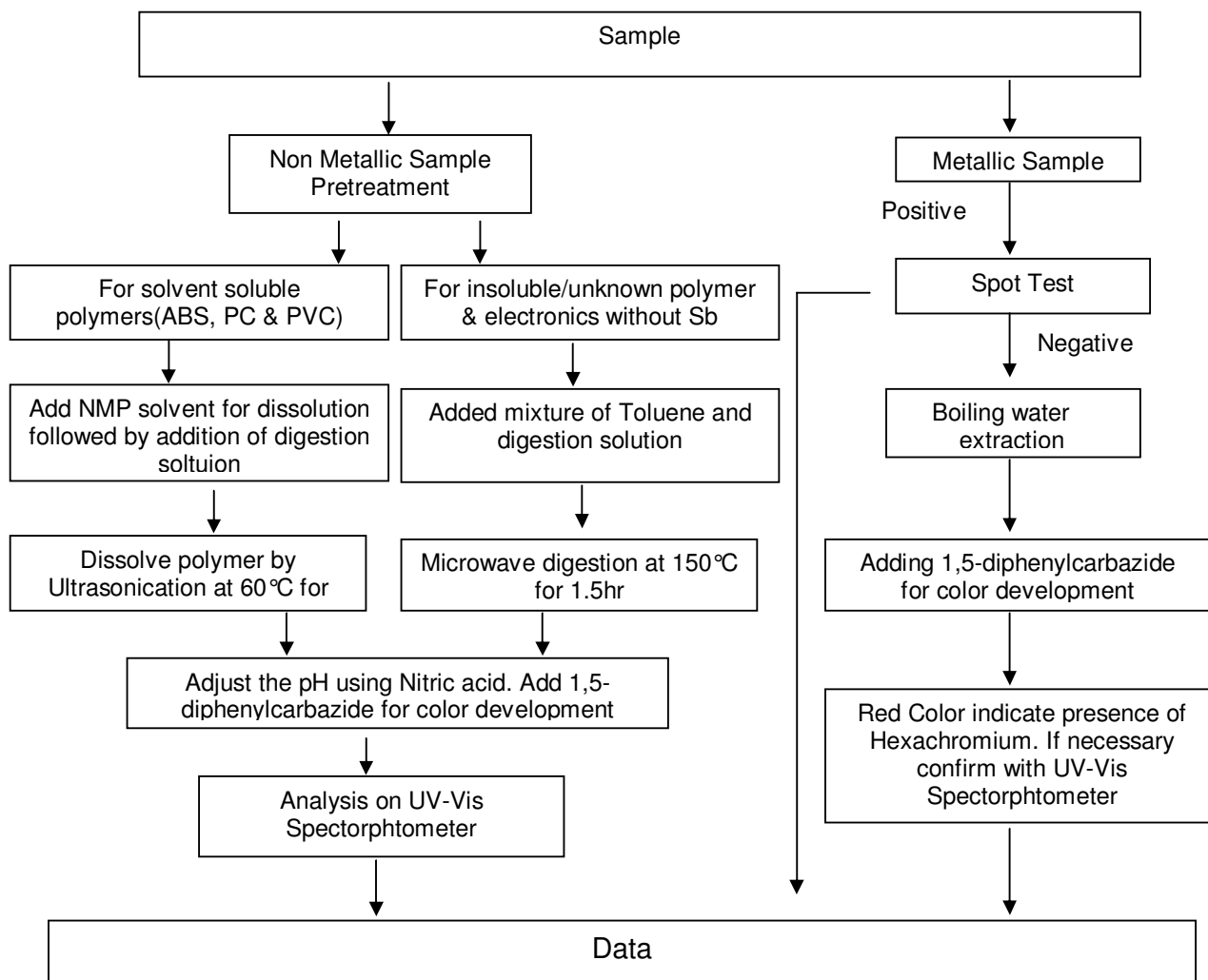


Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute



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



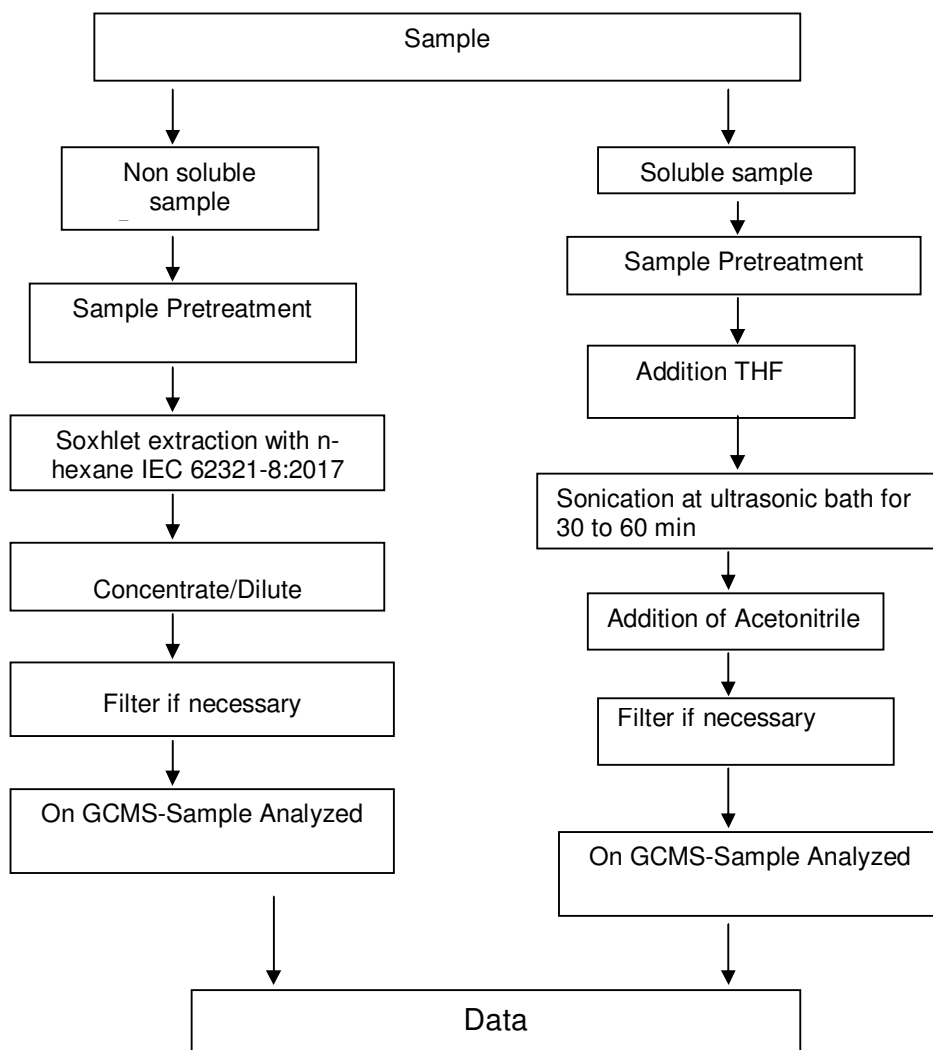
Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute



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

Extraction:



Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute

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Sample Photo : as received



SGS authenticate the photo on original report only

Note : Test performed as per the conditions given by the client.
Above test has been subcontracted to **SGS PUNE lab**.

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B-20 UPSIDC INDUSTRIAL AREA SITE-C

NOIDA-201301

IN

CONTACT PERSON : MR. ANURAG CHAUDHARY.

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

SAMPLE DESCRIPTION ASTM E34 - ALUMINIUM ROD TESTING STANDARD

COUNTRY OF ORIGIN INDIA

SAMPLE RECD ON 06/01/2020

TESTING PERIOD : 13/01/2020 - 14/01/2020

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ROHS 10 ELEMENT TEST:

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JOE No. : 2053800086

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Control No.:1153500658

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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	-
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Heptabromodiphenyl ether	mg/kg	n.d.	50	-
Octabromodiphenyl ether	mg/kg	n.d.	50	-
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Decabromodiphenyl ether	mg/kg	n.d.	50	-
Dibutyl phthalate (DBP)	mg/kg	n.d.	100	1000
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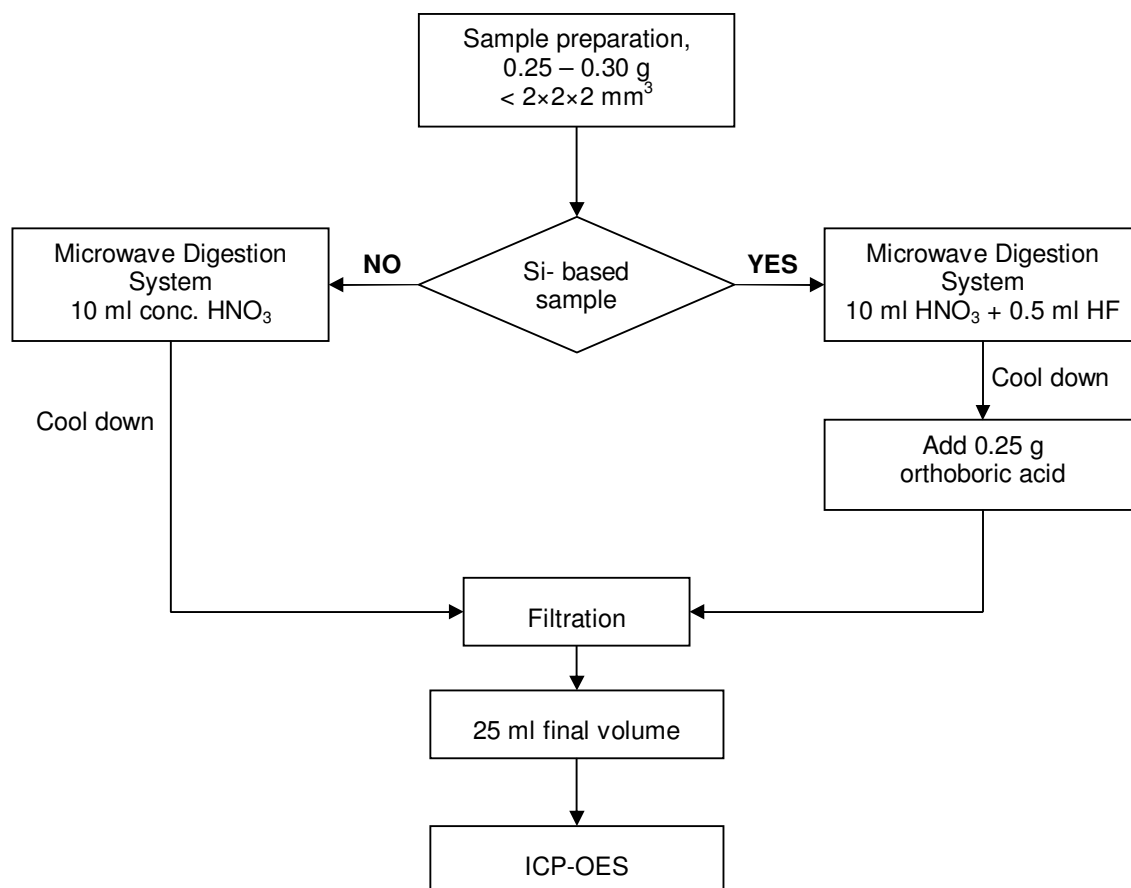
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Process Flow for analysis of metal contents in plastics, metals and electronic components sample

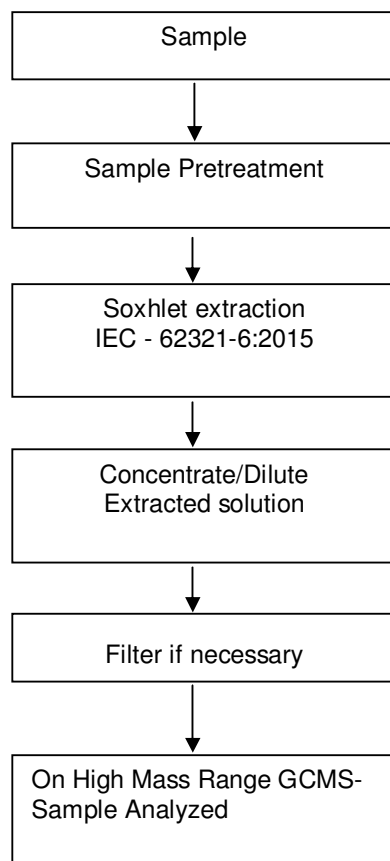


Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute



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

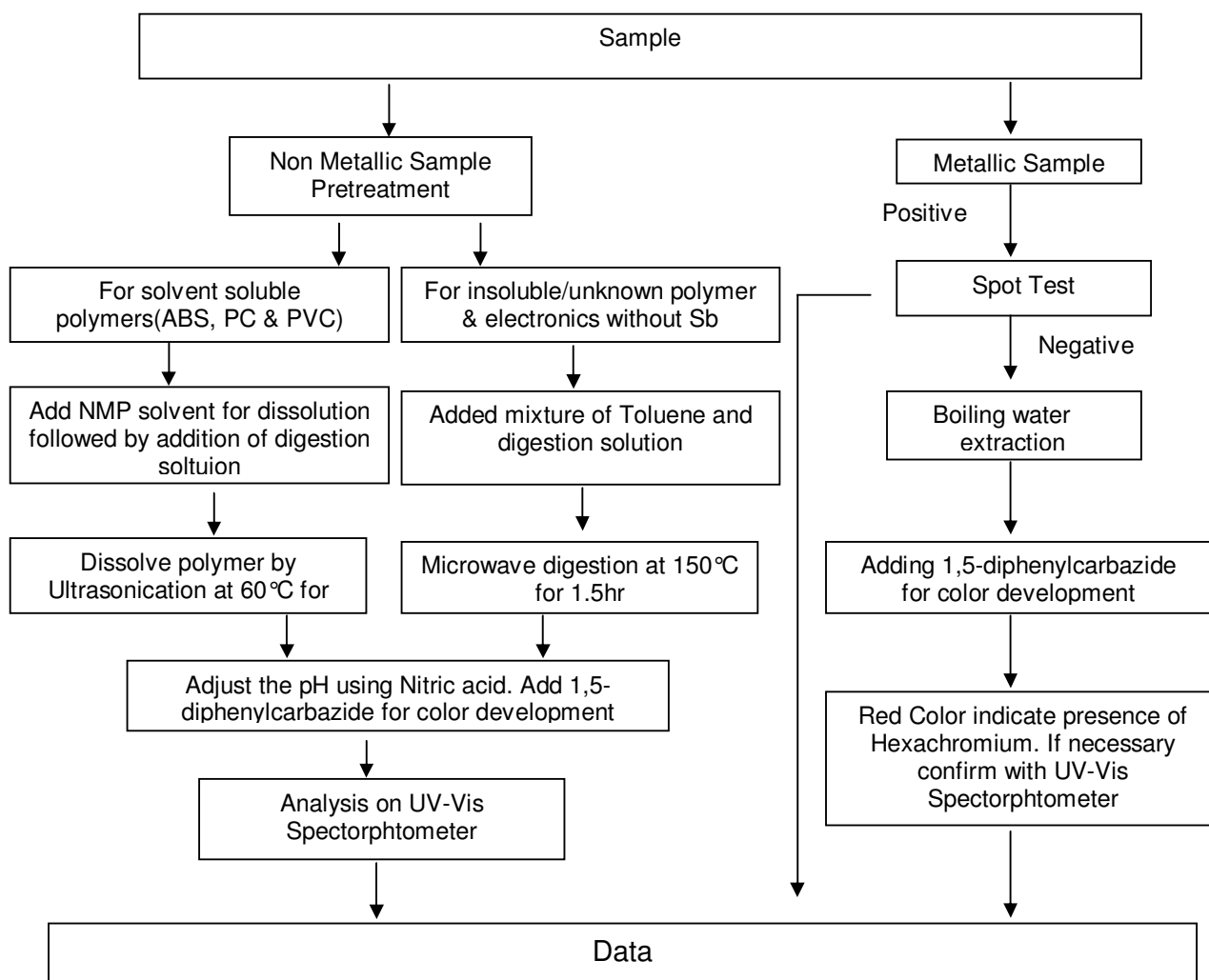


Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute



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



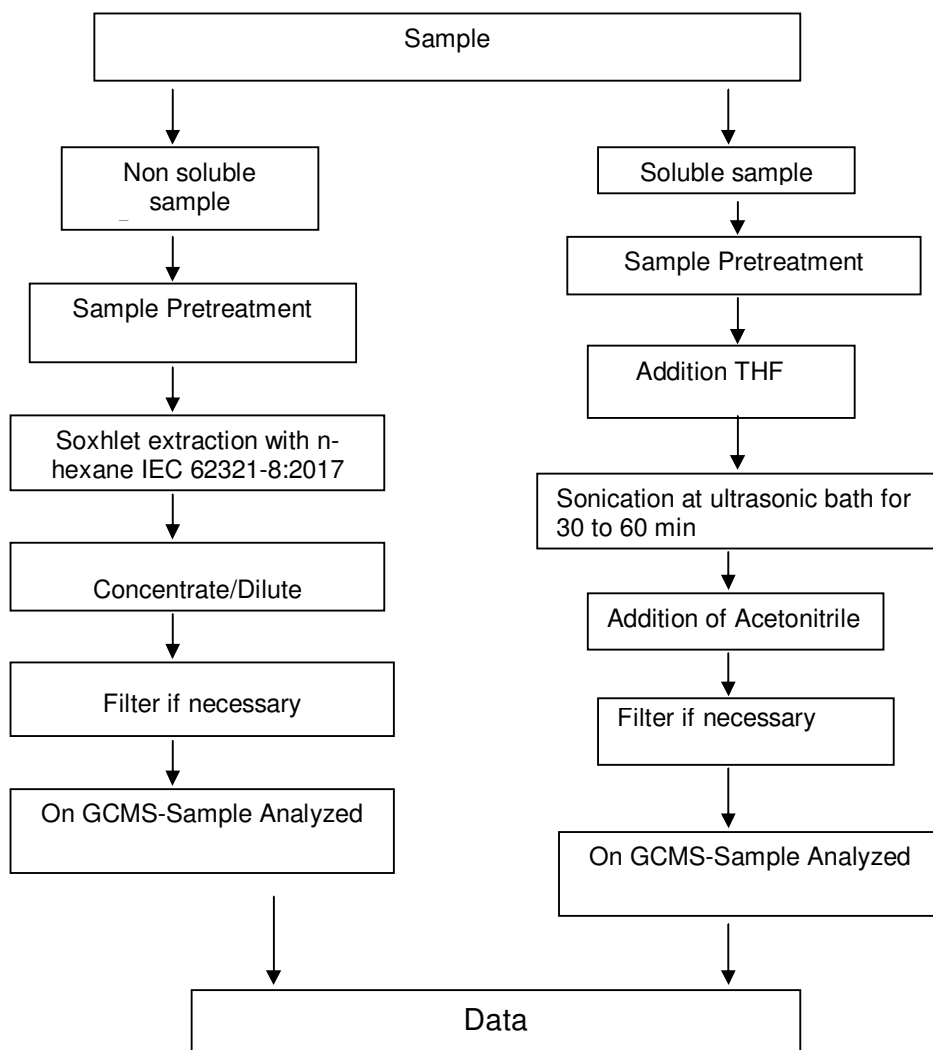
Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute



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

Extraction:



Analyzed By : Deepali Binawade

Checked By : Sachin Vibhute

TEST REPORT

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DATE : 17/01/2020



Sample Photo : as received



SGS authenticate the photo on original report only

Note : Test performed as per the conditions given by the client.
Above test has been subcontracted to **SGS PUNE lab**.