

TEST REPORT

Report No. : PN:EE:1356003532

DATE : 04/10/2022

HANA EDM WIRE CO.,LTD
399/14 MOO13 SOI25/1 KINGKEAW RD,RACHATEWA,BANGPLEE,SAMUTPRAKARN 10540
IN CONTACT PERSON : ROHIT ZALTE

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

SAMPLE DESCRIPTION Zinc Wire 2.00mm
COIL NO 5500
BATCH NO 22/136
OEM OTHERS
COUNTRY OF ORIGIN THAILAND
SAMPLE RECD ON 26/08/2022
TEST(S) REQUESTED ROHS 10E

TESTING PERIOD :29/09/2022-01/10/2022

Test Description	Remarks
ROHS 10E	PASS

CONCLUSION : Based on the performed tests on selected part of submitted samples, the results of Lead, Mercury, Cadmium, 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 Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Per Pro SGS India Private Ltd

SACHIN M. VIBHUTE
Sr.Executive

Authorized Signatory
Email your Test Report Related Enquiries at feedback.trp@sgs.com

JOE No. : 2256800794

Page -1 of 9

Control No.:1356503699

and s This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm and Terms and Conditions for electronic documents www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

TEST REPORT

Report No. : PN:EE:1356003532

DATE : 04/10/2022

Test Part Description:

Product No.	Sample No.	Material Description	Remarks
--	-	Zinc Wire 2.00mm Coil No 5500	--

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 62321-4:2017-07, determination of Mercury by ICP-OES.
- (4) With reference to IEC 62321-7-2:2017-03, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis Spectrophotometer.
- (5) With reference to IEC 62321-6:2015-06, determination of PBBs and PBDEs by GC-MS.
- (6) With reference to IEC 62321-8:2017-03, determination of phthalates by GC-MS.

JOE No. : 2256800794

Page -2 of 9

Control No.:1356503699

and s This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm and Terms and Conditions for electronic documents www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

TEST REPORT
Report No. : PN:EE:1356003532
DATE : 04/10/2022
Test result:

Test Item(s):	Unit	Results	Reporting Limit	Acceptance Criteria
Cadmium(Cd)	mg/kg	n.d.	<1	100
Lead (Pb)	mg/kg	n.d.	<1	1000
Mercury (Hg)	mg/kg	n.d.	<1	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	-
Tetrabromodiphenylether	mg/kg	n.d.	50	-
Pentabromodiphenyl ether	mg/kg	n.d.	50	-
Hexabromodiphenyl ether	mg/kg	n.d.	50	-
Heptabromodiphenylether	mg/kg	n.d.	50	-
Octabromodiphenylether	mg/kg	n.d.	50	-
Nonabromodiphenyl ether	mg/kg	n.d.	50	-
Decabromodiphenyl ether	mg/kg	n.d.	50	-
Phthalates	-	-	-	1000
Dibutyl phthalate (DBP)	mg/kg	n.d.	<1	-
Butylbenzyl phthalate (BBP)	mg/kg	n.d.	<1	-
Bis (2-ethylhexyl) phthalate (DEHP)	mg/kg	n.d.	<1	-
Diisobutyl Phthalates (DIBP)	mg/kg	n.d.	<1	-

Remarks:

- (1) 1mg/kg=0.0001%
- (2) n.d = not detected (<Reporting Limit)
- (3) - = not regulated

JOE No. : 2256800794

and s This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm and Terms and Conditions for electronic documents www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

TEST REPORT

Report No. : PN:EE:1356003532

DATE : 04/10/2022

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) The result of Hexavalent Chromium (Cr(VI)) is “n.d.” as the result of Chromium (Cr) is “n.d.”, and confirmation test of Hexavalent Chromium (Cr(VI)) is not required.

(3) If the Chromium (Cr) content is greater than the Reporting Limit of Hexavalent Chromium (Cr(VI)), confirmation test of Hexavalent Chromium (Cr(VI)) is required.

(4) 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.

(5) 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.

(6) 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.

(7) 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.

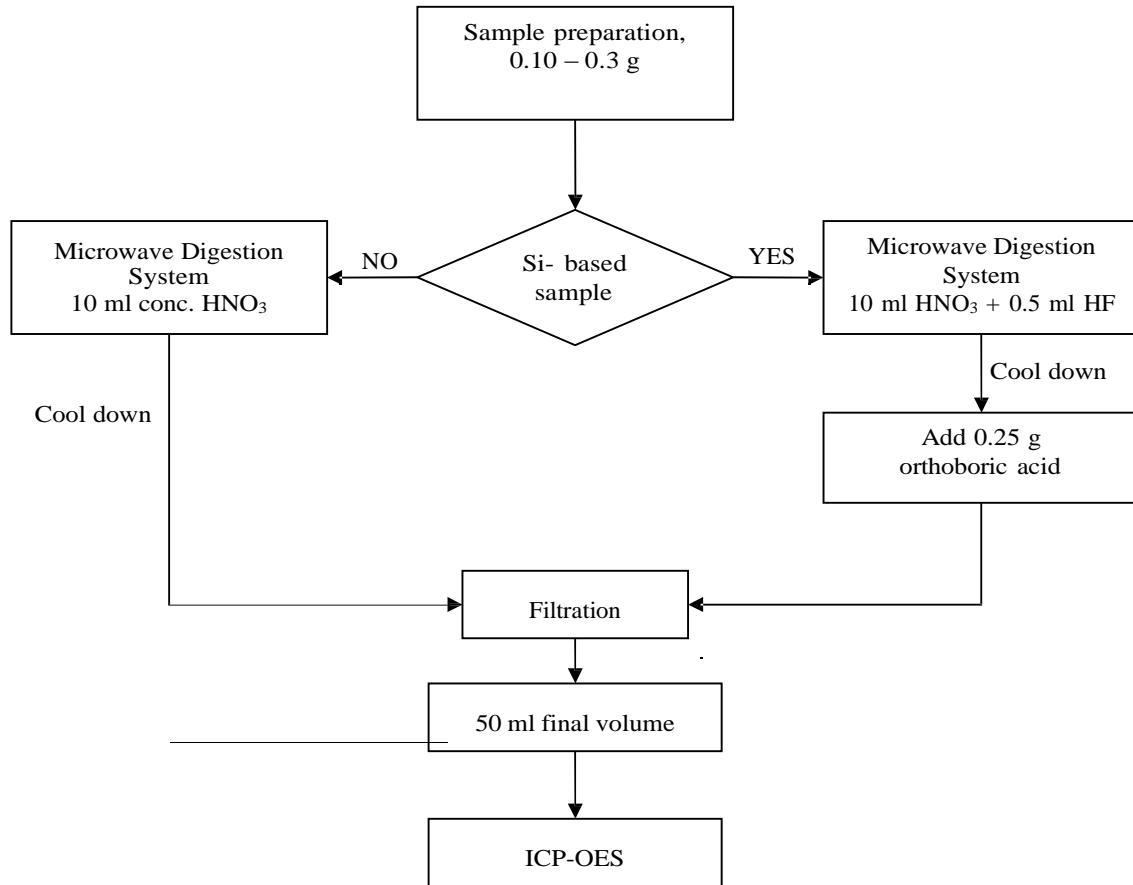
JOE No. : 2256800794

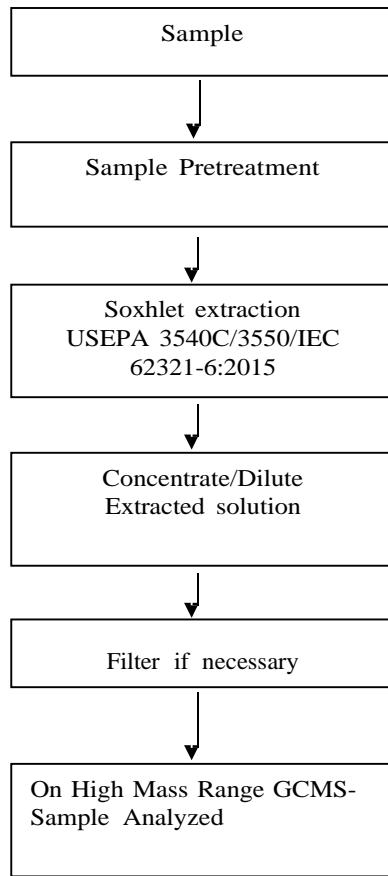
Page -4 of 9

Control No.:1356503699

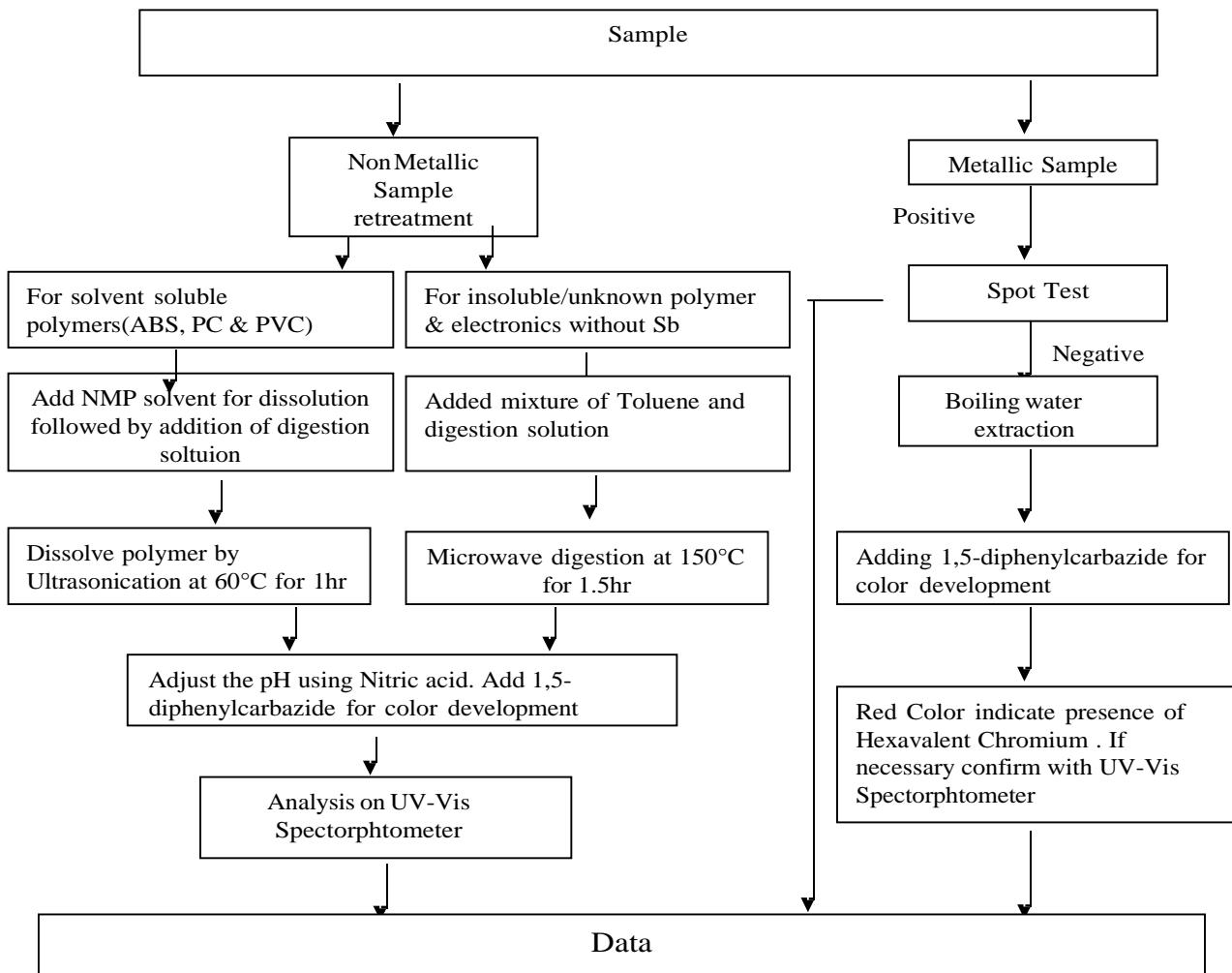
and s This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm and Terms and Conditions for electronic documents www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.

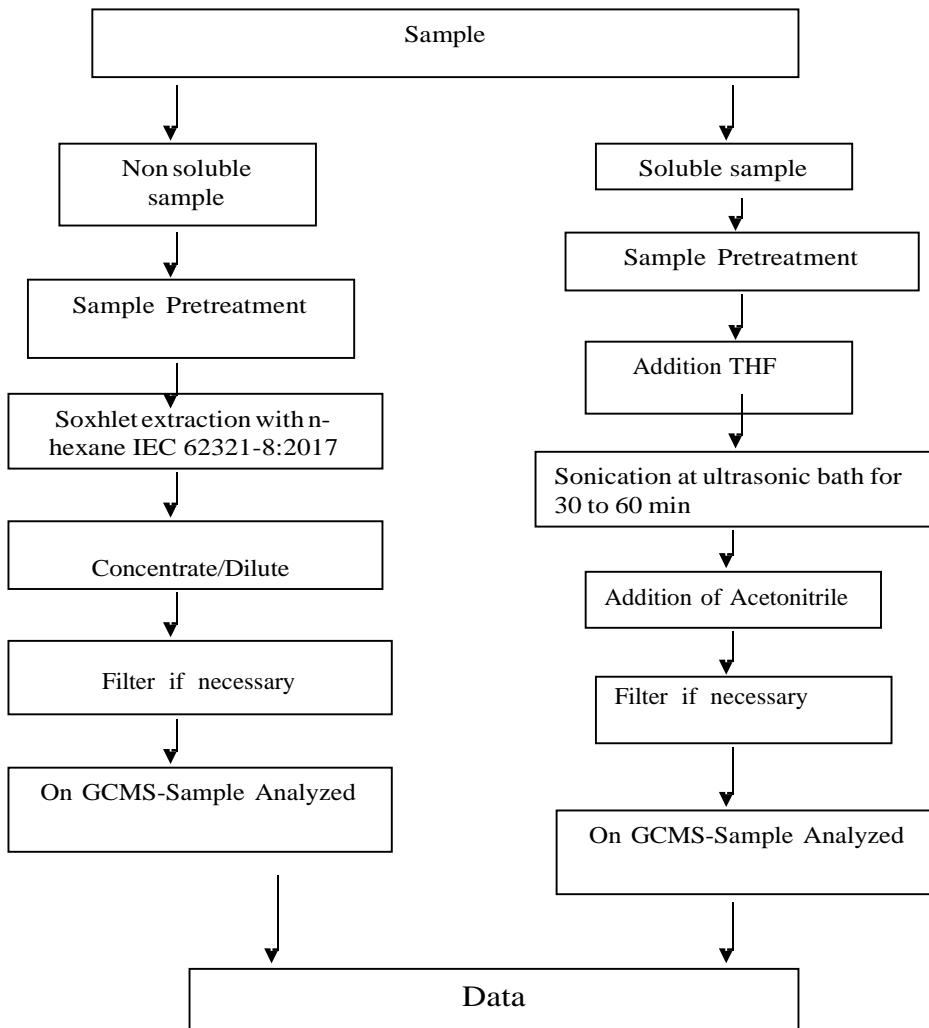
Process Flow for analysis of metal contents in plastics, metals and electronic components sample


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

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



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



TEST REPORT

Report No. : PN:EE:1356003532

DATE : 04/10/2022

Sample Photo:



SGS authenticate the photo on original report only

Note : Above test has been subcontracted.

*** End of Report ***

JOE No. : 2256800794

Page -9 of 9

Control No.:1356503699

and s This document is issued by the Company under its General Conditions of Service printed overleaf or available on request and accessible at http://www.sgs.com/terms_and_conditions.htm and Terms and Conditions for electronic documents www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. This document cannot be reproduced except in full, without prior approval of the Company.