

**Test Report No.:** CANEC24025204417 **Date:** Nov 26, 2024 Page 1 of 8

Client Name: 3F ELECTRONICS INDUSTRY CORP., LTD.

Client Address: NO.5, ZHENXING ROAD, LIYUHE INDUSTRY PARK, LOUCUN VILLAGE, GONGMING

STREET, GUANGMING NEW DISTRICT, SHENZHEN, GUANGDONG, CHINA

Sample Name: PVC wire and cable

Model No.: UL1015 18AWG Orange

Client Ref. Information: See attached pages

The above sample(s) and information were provided by the client.

SGS Job No.: SZP24-049571 Sample Receiving Date: Nov 12, 2024

Testing Period: Nov 12, 2024 ~ Nov 18, 2024

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

| Test Requirement  | Conclusion |
|---|------------|
| EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) | Pass       |

Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Dongyu Xie

Approved Signatory





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### Test Result(s):

Test Part Description:

| SN ID | Sample No. | SGS Sample ID           | Description           |
|-------|------------|-------------------------|-----------------------|
| SN1   | A9         | CAN24-0252044-0001.C009 | Orange plastic jacket |

#### Remarks:

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

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)

**Test Method:** With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017 and IEC 62321-12:2023, analysis was performed by ICP-OES/AAS, UV-Vis and GC-MS.

| Test Item(s)                              | Limit | Unit(s) | MDL | A9 |
|---|-------|---------|-----|----|
| Lead (Pb)                                 | 1000  | mg/kg   | 2   | ND |
| Mercury (Hg)                              | 1000  | mg/kg   | 2   | ND |
| Cadmium (Cd)                              | 100   | mg/kg   | 2   | ND |
| Hexavalent Chromium (Cr(VI))              | 1000  | mg/kg   | 8   | ND |
| Polybrominated biphenyls (PBB)            | 1000  | mg/kg   | -   | ND |
| Monobrominated biphenyl (MonoBB)          | -     | mg/kg   | 25  | ND |
| Dibrominated biphenyl (DiBB)              | -     | mg/kg   | 25  | ND |
| Tribrominated biphenyl (TriBB)            | -     | mg/kg   | 25  | ND |
| Tetrabrominated biphenyl (TetraBB)        | -     | mg/kg   | 25  | ND |
| Pentabrominated biphenyl (PentaBB)        | -     | mg/kg   | 25  | ND |
| Hexabrominated biphenyl (HexaBB)          | -     | mg/kg   | 25  | ND |
| Heptabrominated biphenyl (HeptaBB)        | -     | mg/kg   | 25  | ND |
| Octabrominated biphenyl (OctaBB)          | -     | mg/kg   | 25  | ND |
| Nonabrominated biphenyl (NonaBB)          | -     | mg/kg   | 25  | ND |
| Decabrominated biphenyl (DecaBB)          | -     | mg/kg   | 25  | ND |
| Polybrominated diphenyl ethers (PBDE)     | 1000  | mg/kg   | -   | ND |
| Monobrominated diphenyl ether (MonoBDE)   | -     | mg/kg   | 25  | ND |
| Dibrominated diphenyl ether (DiBDE)       | -     | mg/kg   | 25  | ND |
| Tribrominated diphenyl ether (TriBDE)     | -     | mg/kg   | 25  | ND |
| Tetrabrominated diphenyl ether (TetraBDE) | -     | mg/kg   | 25  | ND |
| Pentabrominated diphenyl ether (PentaBDE) | -     | mg/kg   | 25  | ND |
| Hexabrominated diphenyl ether (HexaBDE)   | -     | mg/kg   | 25  | ND |
| Heptabrominated diphenyl ether (HeptaBDE) | -     | mg/kg   | 25  | ND |



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| Test Item(s)                            | Limit | Unit(s) | MDL | A9 |
|---|-------|---------|-----|----|
| Octabrominated diphenyl ether (OctaBDE) | -     | mg/kg   | 25  | ND |
| Nonabrominated diphenyl ether (NonaBDE) | -     | mg/kg   | 25  | ND |
| Decabrominated diphenyl ether (DecaBDE) | -     | mg/kg   | 25  | ND |
| Di-2-Ethyl Hexyl Phthalate (DEHP)       | 1000  | mg/kg   | 50  | ND |
| Benzyl Butyl Phthalate (BBP)            | 1000  | mg/kg   | 50  | ND |
| Dibutyl Phthalate (DBP)                 | 1000  | mg/kg   | 50  | ND |
| Diisobutyl Phthalate (DIBP)             | 1000  | mg/kg   | 50  | ND |

#### Notes:

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

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019.



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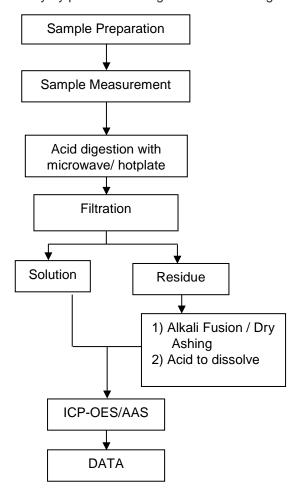
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# Test Report ATTACHMENTS

### **Elements Testing Flow Chart**

These samples were dissolved totally by pre-conditioning method according to below flow chart.





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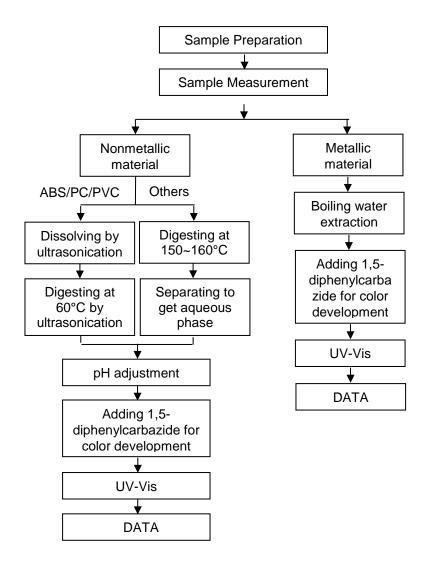
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### Hexavalent Chromium (Cr(VI)) Testing Flow Chart





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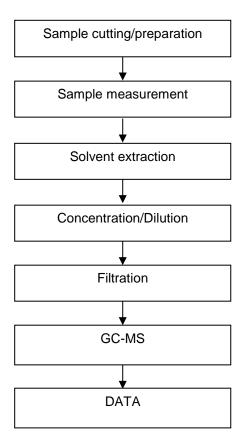
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## Test Report ATTACHMENTS

### PBB/PBDE/Phthalates Testing Flow Chart





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Attachment: 1007, 1010, 1013, 1015, 1017, 1020, 1021, 1022, 1023, 1024, 1026, 1027, 1028, 1040, 1041, 1043, 1054, 1055, 1056, 1061, 1095, 1207, 1211, 1220, 1230, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1265, 1266, 1275, 1283, 1284, 1308, 1314, 1316, 1452, 1569, 1571, 1589, 1617, 1618, 1672, 1764, 2038, 2095, 2096, 2101, 2102, 2103, 2127, 2129, 2265, 2343, 2344, 2345, 2346, 2384, 2385, 2386, 2387, 2388, 2448, 2463, 2464, 2468, 2490, 2493, 2501, 2502, 2516, 2517, 2532, 2550, 2560, 2569, 2570, 2571, 2574, 2576, 2584, 2586, 2587, 2589, 2598, 2614, 2626, 2630, 2631, 2637, 2651, 2653, 2654, 2655, 2656, 2660, 2661, 2662, 2668, 2679, 2704, 2709, 2722, 2726, 2733, QFR, 2754, 2919, 2990, 3463, 3482, 10024, 10053, 10070, 10076, 10198, 10269, 20276, 20293, 20294, 20295, 20478, 20480, 20482, 21014, 1429, 1430, 1431, 3314, 3315, 3443, 3453, 3454, 3558, 3611, 10093, 10097, 10183, 10271, 1032, 10346, 10347, 11627, MTW/TEW1015, 60227IEC01(BV), 60227IEC02(RV), 60227IEC05(BV), 60227IEC06(RV), 60227IEC08(RV-90), VDE WIRE, QB-A, QB-B, AVR, HDT, STT, SGT, GPT, TWP, FLRY, FLY, FLRYW, FLRX, FLR9Y, FLRW, MIL-W-76, 16878/1C, 16878/2C, 16878/3C, 16878/17B, AV, BVR, AVS, AVSS, AVSX, AVSSH, CAV, CAVS, CAVUS, EB, HEB, HEBX, HDEB, AVXS, AVX, AVFX, EBX, AVF, QVR, GB.AV.300/300V, GB.RVS.300/300V, TVSSX, MTW, MTW/TEW1015, H05V-K, H07V-K, E-80/T,TX,TY,TN/PVC 150V,300V, 600VFLALYW, R2, 60227 IEC 52 (RVV), 60227 IEC 53 (RVV), FLUY, FLUYY, FHLRY, FLY-B, TW, THHN, THW, THW-2, THHW, THWN, THWN-2, TWE-105/T,TX,TY,TN/PVC 150V,300V,600V, EBB-80/T,TX/PVC 150V, CQC PVC wire and PVC TUBE



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Sample Photo:



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