



**BUREAU
VERITAS**

TEST REPORT

LAB NO. : (6618)363-1026
DATE : December 29, 2018
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Date of Submission: 2018-11-12
Test Period: 2018-11-13 to 2018-12-20
BV EE Ref. No.: ACMJ-18DE26-149CTSHP-A0

| | | | |
|---------------------|---|-------------------------|-----------------|
| Sample Description: | Sample(s) received is(are) stated to be: Glue guns | | |
| Style No(s): | TY-G6002A | PO No.: | / |
| Country of Origin: | / | Country of Destination: | Oversea Country |

Test Item(s): Glue guns

SUMMARY OF TEST RESULTS

| TEST REQUESTED | CONCLUSION |
|--|------------|
| Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments | PASS |
| Phthalate Test – Reference to (EU) 2015/863 amending Annex II to Directive 2011/65/EU & As Applicant's requirement | PASS |

REMARK

If there are questions or concerns on this report, please contact the following persons:

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CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)

Laboratory Test Location:

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PREPARED BY :

Abby

Gorden Yu

Lab Manager



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Photo of the Submitted Sample





TEST RESULT

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments

Test Method : See Appendix.

See Analytes and their corresponding Maximum Allowable Limit in Appendix

| - | | | Result | | | | | Conclusion |
|-----------|---|------------|-----------|--------------|--------------|---------------------|--------------|------------|
| Parameter | | | Lead (Pb) | Cadmium (Cd) | Mercury (Hg) | Chromium VI (Cr VI) | PBBs & PBDEs | |
| Unit | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - |
| Test Item | Description | Location | - | - | - | - | - | - |
| 1 | Golden metal with silvery plating | Pin holder | ND | ND | ND | ND | NA | PASS |
| 2 | White plastic | | ND | ND | ND | ND | ND* | PASS |
| 3 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 4 | Black plastic cable jacket | | ND | ND | ND | ND | ND | PASS |
| 5 | Brown plastic wire jacket | | ND | ND | ND | ND | ND | PASS |
| 6 | Blue plastic wire jacket | | ND | ND | ND | ND | ND | PASS |
| 7 | Coppery metal wire | | ND | ND | ND | ND | NA | PASS |
| 8 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 9 | Silvery metal screw | Housing | ND | ND | ND | ND | NA | PASS |
| 10 | Red plastic | | ND | ND | ND | ND | ND | PASS |
| 11 | Silvery metal with black plating | | <500 | ND | ND | ND | NA | PASS |
| 12 | Red plastic | | ND | ND | ND | ND | ND | PASS |
| 13 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 14 | Silvery plastic label with black printing | | ND | ND | ND | ND | ND | PASS |
| 15 | Silvery metal | | <500 | ND | ND | ND | NA | PASS |
| 16 | Silvery metal | | 607* | ND | ND | ND | NA | PASS |
| 17 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 18 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 19 | Golden metal | Inside | ND | ND | ND | ND | NA | PASS |
| 20 | Transparent plastic wire jacket | | ND | ND | ND | ND | ND | PASS |
| 21 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 22 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 23 | Yellow resistor | | ND | ND | ND | ND | ND | PASS |
| 24 | Golden metal (2018-12-19 second submission) | | ND | ND | ND | ND | NA | PASS |
| 25 | Transparent bulb | | ND | ND | ND | ND | NA | PASS |
| 26 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 27 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 28 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 29 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 30 | Silvery metal spring | | ND | ND | ND | ND | NA | PASS |



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| - | | | Result | | | | | |
|-----------|----------------------|----------|-----------------|--------------|--------------|---------------------|--------------|-----------------|
| Parameter | | | Lead (Pb) | Cadmium (Cd) | Mercury (Hg) | Chromium VI (Cr VI) | PBBs & PBDEs | Conclusion |
| Unit | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | - |
| Test Item | Description | Location | - | - | - | - | - | - |
| 31 | Black plastic | Inside | ND | ND | ND | ND | ND* | PASS |
| 32 | Black plastic | | ND | ND | ND | ND | ND | PASS |
| 33 | Silvery metal spring | | ND | ND | ND | ND | NA | PASS |
| 34 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 35 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 36 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 37 | Yellow plastic | | ND | ND | ND | ND | ND | PASS |
| 38 | Grey ceramic | | EX [#] | ND | ND | ND | NA | EX [#] |
| 39 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 40 | Orange plastic | | ND | ND | ND | ND | ND | PASS |
| 41 | Silvery metal | | ND | ND | ND | ND | NA | PASS |
| 42 | Silvery metal ball | | ND | ND | ND | ND | NA | PASS |

Note / Key :

ND = Not detected
 NR = Not requested
 Detection Limit: See Appendix.

“>” = Greater than
 mg/kg = milligram(s) per kilogram = ppm = part(s) per million
 NA = Not applicable

“<” = Less than
 EX = Exempted

Remark :

- The testing approach is listed in table of Appendix.
- * denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Parliament and Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.
- For item 38:
 #According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(b) is reiterated here “Lead as an alloying element in aluminium containing up to 0.4 % lead by weight.”. Test Item(s) was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.
 The above results are transferred from (6618)347-1314 dated December 20, 2018.



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TEST RESULT

Phthalate Test – Reference to (EU) 2015/863 amending Annex II to Directive 2011/65/EU & As Applicant's requirement

Test Method : Reference to IEC 62321-8: 2017.

Maximum Allowable Limit : 0.1% (Each)

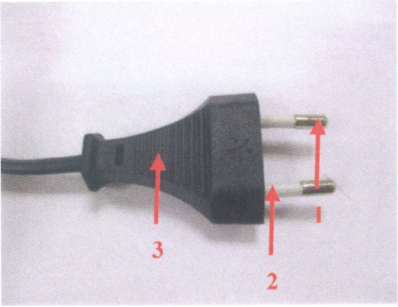
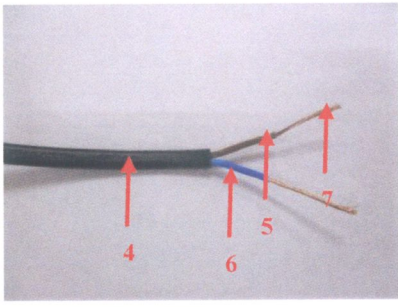
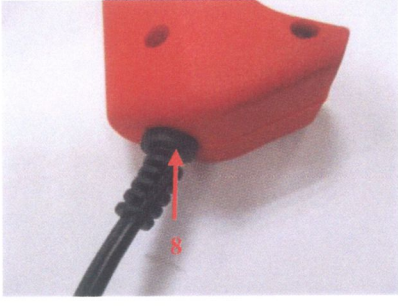
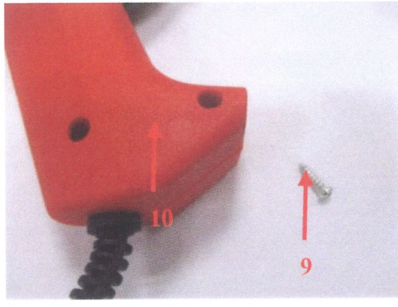
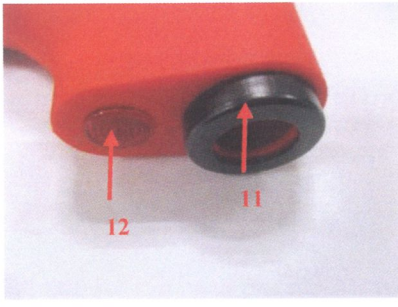
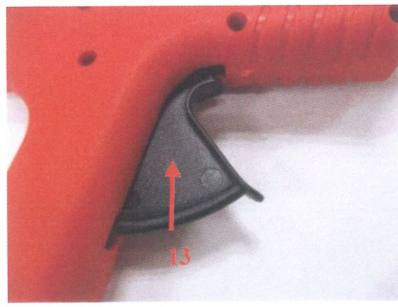
| Parameter | CAS No. | Unit | MDL | Result | | | |
|----------------------------------|----------|------|-------|-------------------|---------------|--------------|--------------|
| | | | | 10+12+ 13+14+2 | 3+4+5+6 +8 | 17+18+ 20 | 22+32+ 40 |
| Dibutyl phthalate (DBP) | 84-74-2 | % | 0.005 | ND | ND | ND | ND |
| Butyl benzyl phthalate (BBP) | 85-68-7 | % | 0.005 | ND | ND | ND | ND |
| Di-2-ethylhexyl phthalate (DEHP) | 117-81-7 | % | 0.005 | ND | ND | ND | ND |
| Diisobutyl phthalate (DIBP) | 84-69-5 | % | 0.005 | ND | ND | ND | ND |
| Conclusion | - | - | - | PASS | PASS | PASS | PASS |

| Parameter | CAS No. | Unit | MDL | Result |
|----------------------------------|----------|------|-------|-------------|
| | | | | 26+27+31+37 |
| Dibutyl phthalate (DBP) | 84-74-2 | % | 0.005 | ND |
| Butyl benzyl phthalate (BBP) | 85-68-7 | % | 0.005 | ND |
| Di-2-ethylhexyl phthalate (DEHP) | 117-81-7 | % | 0.005 | ND |
| Diisobutyl phthalate (DIBP) | 84-69-5 | % | 0.005 | ND |
| Conclusion | - | - | - | PASS |

Note: mg/kg= milligram per kilogram % = percentage 1 mg/kg = 0.0001%
MDL = Method Detection Limit ND = Not Detected (< MDL) “-“ = Not Regulated

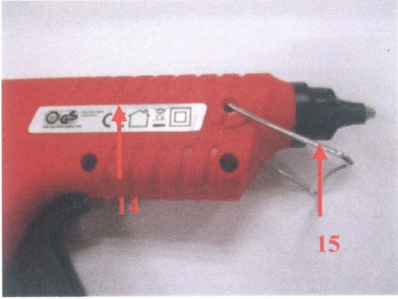
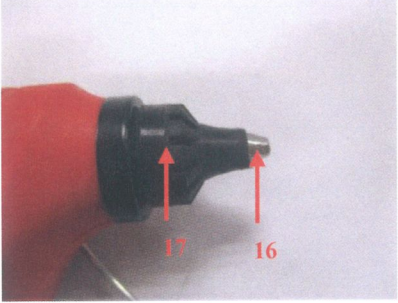
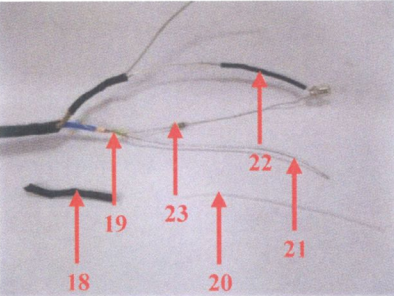
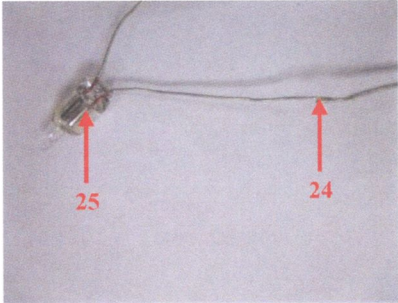
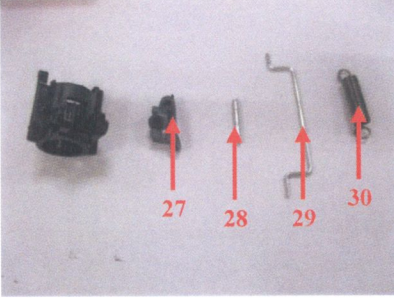
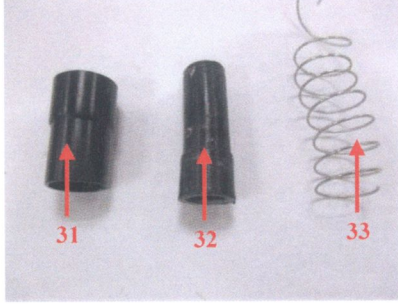
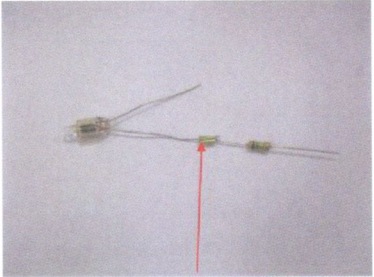
Comment :

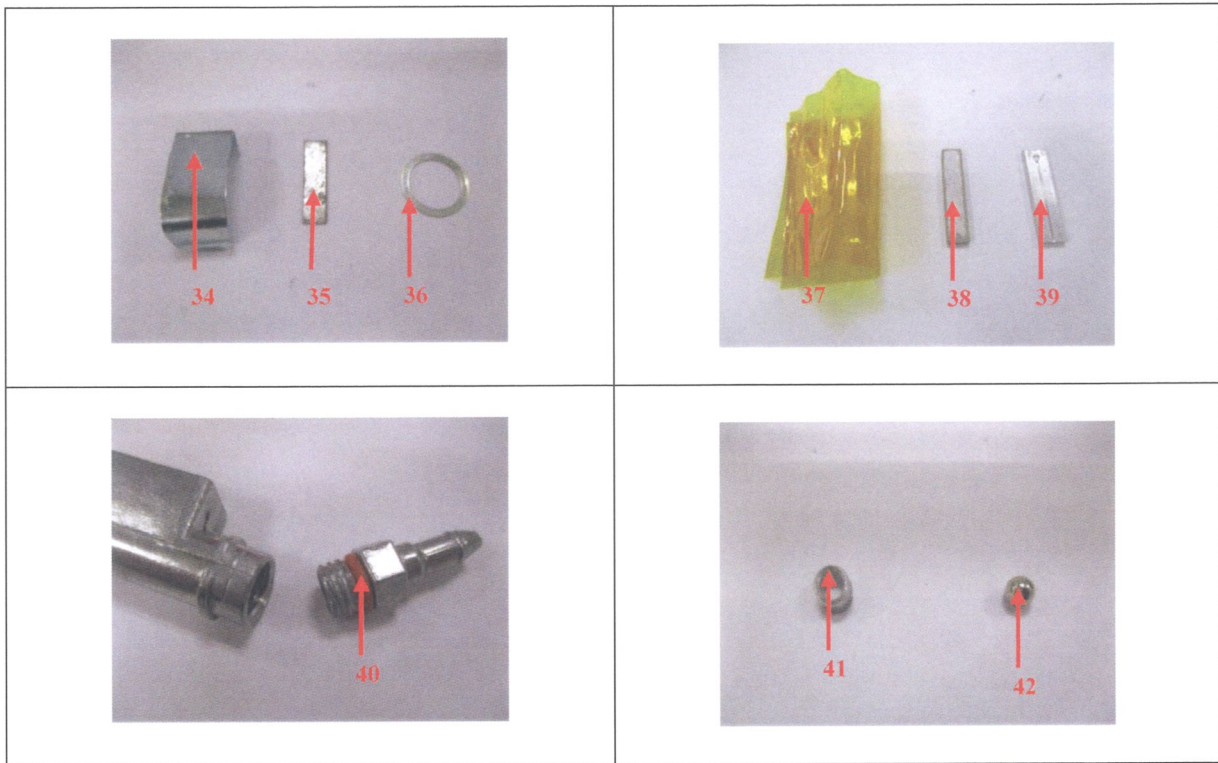
Photograph depicting fail Test Item(s)

| | |
|---|--|
|  |  |
|  |  |
|  |  |



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| | |
|---|--|
|  <p>14 15</p> |  <p>16 17</p> |
|  <p>18 19 20 21 22 23</p> |  <p>24 25</p> |
|  <p>27 28 29 30</p> |  <p>31 32 33</p> |
|  <p>26</p> | <p>/</p> |



END



APPENDIX

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit | Compliance Test for European Parliament and Council Directive 2011/65/EU | :

| No. | Name of Analyte(s) | Detection Limit (mg/kg) | | | | Maximum Allowable Limit (mg/kg) |
|-----|--|---|----------------------------|--------|---|---------------------------------|
| | | X-ray fluorescence (XRF) ^[a] | | | Wet Chemistry | |
| | | Plastic | Metallic / glass / ceramic | Others | | |
| 1 | Lead (Pb) | 100 | 200 | 200 | 10 ^[b] | 1 000 |
| 2 | Cadmium (Cd) | 50 | 50 | 50 | 10 ^[b] | 100 |
| 3 | Mercury (Hg) | 100 | 200 | 200 | 10 ^[c] | 1 000 |
| 4 | Chromium (Cr) | 100 | 200 | 200 | NA | NA |
| 5 | Chromium VI (Cr VI) | NA | NA | NA | 3 ^[g, h] / 10 ^[d] / See ^[e, i] | 1 000 / Negative ^[i] |
| 6 | Bromine (Br) | 200 | NA | 200 | NA | NA |
| 7 | Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB) | NA | NA | NA | Each 50 ^[f] | Sum 1 000 |
| 8 | Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE) | NA | NA | NA | Each 50 ^[f] | Sum 1 000 |

NA = Not applicable IEC = International Electrotechnical Commission

- [a] Test method with reference to International Standard IEC 62321-3-1: 2013.
- [b] Test method with reference to International Standard IEC 62321-5: 2013.
- [c] Test method with reference to International Standard IEC 62321-4: 2013+AMD1: 2017 CSV.
- [d] Polymers and Electronics - Test method with reference to International Standard IEC 62321-7-2: 2017.
- [e] Metal - Test method with reference to International Standard IEC 62321-7-1: 2015.
- [f] Test method with reference to International Standard IEC 62321-6: 2015.
- [g] Leather - Test method International Standard ISO 17075: 2007.
- [h] Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2007.
- [i] Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1).

Testing Approach | Compliance Test for European Parliament and Council Directive 2011/65/EU | :

The testing approach was with reference to the following document(s).

- 1 International Standards IEC 62321-1: 2013 and IEC 62321-2: 2013
- 2 "RoHS Enforcement Guidance Document Version 1" by EU RoHS Enforcement Authorities Informal Network. (May 2006)
- 3 "RoHS Regulations - Government Guidance Notes" by United Kingdom Department for Business Innovation & Skills. (February 2011)
- 4 "Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium" by Belgium Federal Public Service Health, Food Chain Safety and Environment. (November 2005)



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Annex

The client declared that the materials used of below Styles are same as tested style TY-G6002A.

TY-G1003A, TY-G4001A, TY-G6002A, TY-G6008A, TY-G6006, TY-G6003, TY-G6003-K, TY-G1001-X, TY-G4001-X, TY-G1004, TY-G1004K, TY-G4001K, TY-G1001A