

| Applicant: | Barker Microfarads Inc. 205 Mill Street, Hillsville VA 24343 USA | | |
|-----------------------------------|---|--|--|
| Test Subject: | The submitted sample was identified and described by client as: AC Motor Run Capacitor, AC Motor Start Capacitor, Large Tubular Axial Lead Capacitor, Miniature Radial Lead Capacitor, Miniature Axial Lead Capacitor Model No.: 800P506H44N36A4X; 810P5005H44P37A5X; 092A108B330BD4A; 53D579LF; 678D506M150EH8ALF; 500D506M150EH8ALF | | |
| Test Requested and Conclusion: | Test according to RoHS (Restriction of Hazardous Substances) directive 2011/65/EU on submitted samples | | |
| | (1) Quantitative screening of Lead, Cadmium, Mercury, Chromium Pass and Bromine | | |
| | Energy-Dispersive X-Ray Fluorescence Spectroscopy with reference to EN 62321-3-1:2014 | | |
| | (2) Heavy Metals Content Test (Total Cadmium, Total Lead, Total Pass Mercury, Hexavalent Chromium) | | |
| | Test method: With reference to EN 62321-4:2014, EN 62321-5:2014, EN 62321-7-1:2015 and EN 62321:2009, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer ICP-OES and UV-Vis spectrophotometer | | |
| | (3) Brominated Flame Retardants PBBs & PBDEs Test Pass | | |
| | Test Method: With reference to EN 62321-6:2015, extracted by toluene and analyzed by Gas Chromatography and Mass Spectrometry GC-MS. | | |
| | (4) Phthalates (DEHP, BBP, DBP and DIBP) Content Pass | | |
| | Test method: With reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). | | |
| Test Results: | Refer to Section 3 | | |
| Remarks | (1) The results relate only to the items tested.(2) Samples are tested as received. | | |

Note: No extract, abridgment or abstraction from a test report may be published or used to advertise a product without the written consent of the Director of TUV SUD Hong Kong Ltd. The results contained herein apply only to the particular sample tested and to the specific test carried out and not to samples of the current production line.

Tel.: (852) 2443 3774 Fax: (852) 2944 0005



- 1. Order
- 1.1 Customer's Reference Nil
- 1.2 Receipt Date of Test Sample, Location Received on 2017-08-07, 2017-09-01, 2017-10-18, Hong Kong
- **1.3 Date of Testing, Location** From 2017-08-07 to 2017-08-24, 2017-09-01 to 2017-09-07, 2017-10-18 to 2017-10-24, Hong Kong
- 1.4 Document submitted Nil





2. Description of the test subject

| Sample No. | Description | Photograph |
|---------------|---|------------|
| 001 | Silvery metal pin | |
| 002 | Transparent plastic shell with black printing | |
| 003 | Silvery metal housing | |
| 004 | Red non-metal cover | |
| 005 | Black soft plastic base | |
| 006 | Transparent adhesive plastic tape | |
| 007 | Grey paper sheet with liquid | |
| 008 | Silvery metal foil under sample 007 | |
| 009 | Grey metal foil under sample 007 | |



| Sample No. | Description | Photograph |
|---------------|--|------------|
| 010 | Silvery metal pin | |
| 011 | Blue plastic shell with black printing | |
| 012 | Silvery metal housing | |
| 013* | Red non-metal cover | |
| 014 | Black soft plastic ring | |
| 015 | Brown plastic part | |

Remark: * mean the retest sample was provided at 2017-09-01.



| Sample No. | Description | Photograph |
|---------------|-----------------------------------|------------|
| 016 | Silvery metal tape | |
| 017 | Transparent adhesive plastic tape | Company |
| 018 | Brown paper sheet with liquid | |
| 019 | Silvery metal foil | |
| 020 | Grey metal foil | PP |
| 021 | Silvery metal pin | |
| 022 | Black plastic shell | |



| Sample No. | Description | Photograph |
|---------------|-----------------------------------|------------|
| 023 | Silvery metal housing | |
| 024 | Black soft plastic base | |
| 025 | Transparent adhesive plastic tape | |
| 026 | Silvery metal foil | |
| 027 | Silvery metal tape | |
| 028 | Brown paper sheet with liquid | |
| 029 | Grey metal foil | |



| Sample No. | Description | Photograph |
|---------------|--|-------------------|
| 030 | Silvery metal housing | |
| 031 | Black plastic part | |
| 032 | Silvery metal feet | ×13+-24 |
| 033 | White adhesive paper label with black printing | SUPER TOTAL TOTAL |
| 034 | White plastic sheet | |
| 035 | Silvery metal part | |
| 036 | Reddish brown soft plastic part | |



| Sample No. | Description | Photograph |
|---------------|---------------------------|------------|
| 037 | White plastic sheet | |
| 038 | Off-white plastic sheet | |
| 039 | Transparent plastic sheet | |
| 040 | White liquid | |
| 041 | Transparent plastic film | |
| 042 | Silvery plastic foil | |
| 043 | White plastic tube | |
| 044 | Grey non-metal cover | |



| Sample No. | Description | Photograph |
|---------------|--|---|
| 045 | White plastic sheet | |
| 046 | Silvery metal tape | |
| 047 | Black plastic housing | |
| 048 | White adhesive plastic label with black and green printing | B_M 092A1088539 1-130UF 32 50/60Hz +550 1535H USA |
| 049 | Brown plastic sheet | |
| 050 | Silvery metal feet | |
| 051* | Silvery metal ring | |
| 052 | Off-white soft plastic part | |

Remark: * mean the retest sample was provided at 2017-10-18.



| Sample No. | Description | Photograph |
|---------------|-------------------------------|------------|
| 053 | Black plastic inner part | |
| 054 | White adhesive plastic tape | |
| 055 | Brown paper sheet with liquid | |
| 056 | Silvery metal foil | |
| 057 | Grey metal foil | |
| 058 | Silvery metal sheet | |



| Sample No. | Description | Photograph |
|---------------|---|------------|
| 059 | Green plastic shell with black printing | EM.to |
| 060 | Silvery metal feet | |
| 061 | Black plastic part | |
| 062 | Silvery metal housing | |
| 063 | Silvery metal part | |
| 064 | White plastic sheet | |
| 065 | Brown soft plastic part | |



| Sample No. | Description | Photograph |
|---------------|--------------------------------|------------|
| 066 | White soft plastic sheet | |
| 067 | Off-white plastic sheet | |
| 068 | Transparent soft plastic sheet | |
| 069 | White liquid | |
| 070 | Transparent soft plastic film | |
| 071 | Silvery plastic foil | |



| Sample No. | Description | Photograph |
|---------------|---------------------------|------------|
| 072 | Silvery metal tape | |
| 073 | White plastic sheet | |
| 074 | Transparent plastic sheet | |
| 075 | Off-white plastic tube | |
| 076 | Grey non-metal cover | |





3. Test Results

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine Energy-Dispersive X-Ray Fluorescence Spectroscopy with reference to EN 62321-3-1:2014 [Reporting Limit= 50 mg/kg for Cadmium, 300 mg/kg for Bromine, and 500 mg/kg for others]

| Sample | Total Cadmium [mg/kg] | Total Lead [mg/kg] | Total Chromium [mg/kg] | Total Mercury [mg/kg] | Total Bromine [mg/kg] |
|-------------------|-----------------------------|--------------------------|------------------------------|-----------------------------|-----------------------------|
| RoHS Requirements | 100 | 1000 | 1000 | 1000 | 1000 |
| 001 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 002 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 003 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 004 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 005 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 006 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 007 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 008 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 009 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 010 | ≤50 | 501-1500* | ≤500 | ≤500 | N/A |
| 011 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 012 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 013σ | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 014 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 015 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 016 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 017 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 018 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 019 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 020 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 021 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 022 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 023 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 024 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 025 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |

Note: 1. " \leq " denotes less than or equal to

2. ">" denotes greater than

3. " * " denotes further testing was conducted, please refer to the test result 3.2

4. "N/A" denotes Not Applicable

5. "mg/kg"denotes milligram per kilogram

6. "σ" mean retest result



3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine Energy-Dispersive X-Ray Fluorescence Spectroscopy with reference to EN 62321-3-1:2014 [Reporting Limit= 50 mg/kg for Cadmium, 300 mg/kg for Bromine, and 500 mg/kg for others]

| Sample | Total Cadmium [mg/kg] | Total Lead [mg/kg] | Total Chromium [mg/kg] | Total Mercury [mg/kg] | Total Bromine [mg/kg] |
|-------------------|-----------------------------|--------------------------|------------------------------|-----------------------------|-----------------------------|
| RoHS Requirements | 100 | 1000 | 1000 | 1000 | 1000 |
| 026 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 027 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 028 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 029 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 030 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 031 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 032 | ≤50 | 501-1500* | ≤500 | ≤500 | N/A |
| 033 | _ ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 034 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 035 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 036 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 037 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 038 | ≤50 | ≤500 | ≤500 | ≤500 | >300** |
| 039 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 040 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 041 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 042 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 043 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 044 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 045 | ≤50 | ≤500 | ≤500 | ≤500 | >300** |
| 046 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 047 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 048 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 049 | ≤50 | ≤500 | ≤500 | ≤500 | >300** |
| 050 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |

Note: 1. " \leq " denotes less than or equal to

2. ">" denotes greater than

3. " * " denotes further testing was conducted, please refer to the test result 3.2

4. " ** " denotes further testing was conducted, please refer to the test result 3.3

5. "N/A" denotes Not Applicable

6. "mg/kg"denotes milligram per kilogram



Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine Energy-Dispersive X-Ray Fluorescence Spectroscopy with reference to EN 62321-3-1:2014 [Reporting Limit= 50 mg/kg for Cadmium, 300 mg/kg for Bromine, and 500 mg/kg for others]

| Sample | Total Cadmium [mg/kg] | Total Lead [mg/kg] | Total Chromium [mg/kg] | Total Mercury [mg/kg] | Total Bromine [mg/kg] |
|-------------------|-----------------------------|--------------------------|------------------------------|-----------------------------|-----------------------------|
| RoHS Requirements | 100 | 1000 | 1000 | 1000 | 1000 |
| 051σ | ≤50 | ≤500 | >500* | ≤500 | N/A |
| 052 | ≤50 | ≤500 | ≤500 | ≤500 | >300** |
| 053 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 054 | ≤50 | ≤500 | ≤500 | ≤500 | >300** |
| 055 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 056 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 057 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 058 | . ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 059 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 060 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 061 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 062 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 063 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 064 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 065 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 066 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 067 | ≤50 | ≤500 | ≤500 | ≤500 | >300** |
| 068 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 069 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 070 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 071 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 072 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |
| 073 | ≤50 | ≤500 | ≤500 | ≤500 | >300** |
| 074 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 075 | ≤50 | ≤500 | ≤500 | ≤500 | ≤300 |
| 076 | ≤50 | ≤500 | ≤500 | ≤500 | N/A |

Note: 1. " \leq " denotes less than or equal to

2. ">" denotes greater than

3. " * " denotes further testing was conducted, please refer to the test result 3.2

4. "** " denotes further testing was conducted, please refer to the test result 3.3

5. "N/A" denotes Not Applicable

6. "mg/kg" denotes milligram per kilogram

7. "σ" mean retest result

Test Report No 60.420.17.0157.02



Dated 2017-10-27

3.2 Heavy Metals Content Test Total Cadmium, Total Lead, Total Mercury, Hexavalent Chromium

Test method: With reference to EN 62321-4:2014, EN 62321-5:2014, EN 62321-7-1:2015 and EN 62321:2009, analyzed by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and UV-Vis spectrophotometer.

| Sample | Total Cadmium [mg/kg] | Total Lead [mg/kg] | Total Mercury [mg/kg] | Hexavalent Chromium [mg/kg] | Hexavalent Chromium* [ug/cm ²] |
|--------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------------------|--|
| Detection limit | 2 | 10 | 10 | 10 | 0.1 |
| RoHS Requirements | 100 | 1000 | 1000 | 1000 | |
| 010 | / | 14.1 | / | / | / |
| 032 | / | <10 | / | / | / |
| 051σ | / | / | / | / | Negative |

Note: 1. "<" denotes less than

2. " mg/kg " denotes milligram per kilogram

3. "-" = Not regulated

4. * = Boiling-water-extraction:

a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 ug/cm^2 .

The sample coating is considered to contain CrVI

b. The sample is negative for CrVI if the CrVI concentration is less than 0.10 ug/cm², The coating is considered a non-CrVI based coating.

c. The result between 0.10 ug/cm² and 0.13 ug/cm² is considered to be inconclusiveunavoidable coating variations may influence the determination.

Information on storage conditions and production date of the tested sample is unavailable and thus CrVI results represent status of the sample at the time of testing

5. "σ" mean retest result



3.3 Brominated Flame Retardants PBBs & PBDEs Test

Soxhlet extraction with toluene, qualitatively and quantitatively analyzed by GC-MS with reference to EN 62321-6:2015 [Reporting Limit= 5 mg/kg]

| Flame Retardants | Sample 038+067 | Sample 045+054+073 | Sample 049+052 |
|--------------------------|-------------------|-----------------------|-------------------|
| Monobromobiphenyl | <5 | <5 | <5 |
| Dibromobiphenyl | <5 | <5 | <5 |
| Tribromobiphenyl | <5 | <5 | <5 |
| Tetrabromobiphenyl | <5 | <5 | <5 |
| Pentabromobiphenyl | <5 | <5 | <5 |
| Hexabromobiphenyl | <5 | <5 | <5 |
| Heptabromobiphenyl | <5 | <5 | <5 |
| Octabromobiphenyl | <5 | <5 | <5 |
| Nonabromobiphenyl | <5 | <5 | <5 |
| Decabromobiphenyl | <5 | <5 | <5 |
| Sum of detected PBBs | <50 | <50 | <50 |
| Limit | | Sum of PBBs<1000 | |
| Monobromodiphenyl ether | <5 | <5 | <5 |
| Dibromodiphenyl ether | <5 | <5 | <5 |
| Tribromodiphenyl ether | <5 | <5 | <5 |
| Tetrabromodiphenyl ether | <5 | <5 | <5 |
| Pentabromodiphenyl ether | <5 | <5 | <5 |
| Hexabromodiphenyl ether | <5 | <5 | <5 |
| Heptabromodiphenyl ether | <5 | <5 | <5 |
| Octabromodiphenyl ether | <5 | <5 | <5 |
| Nonabromodiphenyl ether | <5 | <5 | <5 |
| Decabromodiphenyl ether | <5 | <5 | <5 |
| Sum of detected PBDEs | <50 | <50 | <50 |
| Limit | | Sum of PBDEs <1000 | |
| Conclusion | Pass | Pass | Pass |

Note: 1. "<" denotes less than

2. "mg/kg" denotes milligram per kilogram



3.4 Phthalates (DEHP, BBP, DBP and DIBP) Content

Test method: With reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 50 mg/kg]

| | | RoHS | | |
|--|-----------------------|---------------|-----------------------|------------------------|
| Test Item | Sample 002+011+015 | Sample 004 | Sample 005+014+024 | Requirement [mg/kg] |
| Di-(2-ethyl-hexyl) Phthalate (DEHP) | 60 | 100 | 50 | < 1000 |
| Butyl-benzyl Phthalate (BBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-butyl Phthalate (DBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-iso-butyl Phthalate (DIBP) | < 50 | < 50 | < 50 | < 1000 |

| | | RoHS | | |
|--|-------------------|-----------------------|----------------|------------------------|
| Test Item | Sample 006+017 | Sample 007+018+028 | Sample 013σ | Requirement [mg/kg] |
| Di-(2-ethyl-hexyl) Phthalate (DEHP) | < 50 | < 50 | < 50 | < 1000 |
| Butyl-benzyl Phthalate (BBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-butyl Phthalate (DBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-iso-butyl Phthalate (DIBP) | < 50 | < 50 | < 50 | < 1000 |

| | | RoHS | | |
|--|-----------------------|-------------------|-------------------|------------------------|
| Test Item | Sample 022+031+034 | Sample 025+042 | Sample 033+055 | Requirement [mg/kg] |
| Di-(2-ethyl-hexyl) Phthalate (DEHP) | 60 | < 50 | < 50 | < 1000 |
| Butyl-benzyl Phthalate (BBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-butyl Phthalate (DBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-iso-butyl Phthalate (DIBP) | < 50 | < 50 | < 50 | < 1000 |

Note: 1. "<" denotes less than

2. "mg/kg" denotes milligram per kilogram

3. " σ " mean retest result



3.4 Phthalates (DEHP, BBP, DBP and DIBP) Content

Test method: With reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 50 mg/kg]

| | | RoHS | | |
|--|-----------------------|-----------------------|-----------------------|------------------------|
| Test Item | Sample 036+052+065 | Sample 037+038+043 | Sample 039+041+045 | Requirement [mg/kg] |
| Di-(2-ethyl-hexyl) Phthalate (DEHP) | < 50 | 50 | 50 | < 1000 |
| Butyl-benzyl Phthalate (BBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-butyl Phthalate (DBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-iso-butyl Phthalate (DIBP) | < 50 | < 50 | < 50 | < 1000 |

| | RoHS | | |
|-------------------|-------------------------------|--|---|
| Sample 040+069 | Sample 044+053+076 | Sample 047+049+059 | Requirement [mg/kg] |
| 50 | 50 | 60 | < 1000 |
| < 50 | < 50 | < 50 | < 1000 |
| < 50 | < 50 | < 50 | < 1000 |
| < 50 | < 50 | < 50 | < 1000 |
| | 040+069 50 < 50 < 50 | 040+069 044+053+076 50 50 < 50 | Sample 040+069 Sample 044+053+076 Sample 047+049+059 50 50 60 < 50 |

| | | RoHS | | |
|--|-----------------------|-----------------------|-----------------------|------------------------|
| Test Item | Sample 048+054+071 | Sample 061+064+066 | Sample 067+073+075 | Requirement [mg/kg] |
| Di-(2-ethyl-hexyl) Phthalate (DEHP) | < 50 | 50 | 60 | < 1000 |
| Butyl-benzyl Phthalate (BBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-butyl Phthalate (DBP) | < 50 | < 50 | < 50 | < 1000 |
| Di-iso-butyl Phthalate (DIBP) | < 50 | < 50 | < 50 | < 1000 |

Note: 1. "<" denotes less than

2. "mg/kg" denotes milligram per kilogram



3.4 Phthalates (DEHP, BBP, DBP and DIBP) Content

Test method: With reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting limit: 50 mg/kg]

| Test Item | Result [mg/kg] Sample 068+070+074 | RoHS Requirement [mg/kg] |
|--|---|--------------------------------|
| Di-(2-ethyl-hexyl) Phthalate (DEHP) | 60 | < 1000 |
| Butyl-benzyl Phthalate (BBP) | < 50 | < 1000 |
| Di-butyl Phthalate (DBP) | < 50 | < 1000 |
| Di-iso-butyl Phthalate (DIBP) | < 50 | < 1000 |

Note: 1. "<" denotes less than

2. "mg/kg" denotes milligram per kilogram

4. Documentation

Annex 01: Photo of product



TÜV SÜD Hong Kong Ltd TÜV SÜD Group

Prepared by:

Lizm Lin

Lin Liam Project Engineer



Reviewed by:

sor

Anson Cheung Project Manager

- END OF TEST REPORT -

Annex 01: Photo of product







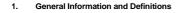






TUV SUD Hong Kong 8/F, Yuen Long Trading Centre, 33 Wang Yip Street West, Yuen Long, New Territories, Hong Kong Tel.: (852) 2443 3774 Fax: (852) 2944 0005

General Terms and Conditions of TÜV SÜD Hong Kong Limited (hereinafter referred to as the company)



- In the event that an order for any services is placed, the Client shall accept the General (1.1)In the event that an order for any services is placed, the Client shall accept the General Terms and Conditions. The General Terms and Conditions shall be applicable to all orders ,resulting contracts and other arrangements, including all offers made or services provided by the Company or any of its affiliated companies They are not applicable if and as far as they are in conflict with the regulations on services performed on behalf of governments, government bodies or any other public entity, or they are in conflict with mandatory provisions of local law. The Client's placement of orders as well as the conclusion of contracts with the Company shall be regarded as awareness and acceptance of these General Terms and Conditions. The Company storgly recommends any Client or potential Client to read the full text of these General Terms and Conditions prior to placement of any order to or conclusion of any contract with the Company staff or the experts called upon by them shall be binding only if they are expressly confirmed by the Company in writing. This shall also apply to any modifications of this clause.
- (1.2)to any modifications of this clause.

Provision of Services 2.

- (2.1) With due care and skill, the Company will provide services according to Client's specific instructions as made available by the Client. In the absence of Client's specific instructions, the following is deemed as instructions given to the Company:

 (a) The terms of any standard specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard order form provided by the Client's specification sheet or standard specification sheet or standard
 - Company; and/or
 - Any relevant usage, practice or trade custom; and/or (b)
 - Such methods the Company considers technically, operationally and/or on financial (c) grounds appropriate
- No other party is entitled to give any instructions particularly on the scope and type of the services or the reports delivered, or on the resulting certificates (the "Reports of Findings"), (2.2)unless the Company receives prior written instructions to the contrary from the Client. The Client hereby irrevocably authorizes the Company to deliver Reports of Findings to a third party where so instructed by the Client or, at the Company's discretion, where it implicitly follows from circumstances, trade custom, usage or practice. The Information stated in the Report of Findings is derived from the results of inspection or
- (2.3)testing procedures carried out in accordance with the instructions and/or Company's as-sessment of such results on the basis of any technical standards, trade custom or practice, or other circumstances which should in Company's professional experience be taken into account
- Reports of Findings issued after the testing of samples refer the Company's opinion only on samples under testing and not to the lot from which the samples were drawn. (2.4)
- Client agrees that the Company's sole responsibility is to be present at the time of the third party's intervention and to forward the results, or confirm the occurrence of the intervention, (2.5)in case Client requests the Company to witness any third party's intervention. Client agrees that the Company will use the test methods for analysis as requested in the request form, and if none is stated in the form, the Company will choose the appropriate test methods for analysis.
- The Reports of Findings issued by the Company will reflect the facts as recorded by it at (2.6)the time of its intervention only and within the limits of the instructions received or, in the absence of such instructions, within the limits of the alternative parameters applied as provided for in Clause 2.1. The Company is under no obligation to refer to, or report upon, any facts or circumstances, which are outside the specific instructions received or alterna-
- The performance of all or part of the services may be delegated to an agent or subcon-tractor by the Company. The Client authorizes the Company to disclose all information (2.7)necessary for such performance to the agent or subcontractor. Documents reflecting engagements contracted between the Client and third parties or third
- (2.8)party documents, e.g. sales contract copies, letters of credit, bills of lading, etc. should be made available to the Company. These are considered to be for information only, and do
- not extend or restrict the scope of the services or the obligations accepted by the Company. The Company agrees that, by providing the services to the Client, it neither takes the place of Client or any third party, nor otherwise assumes, abridges, abrogates or undertakes to discharge any duty of the Client to any third party or that of any third party to the Client. Al-(2.9)
- so, it does not release the Client or any third party from any of their obligations. (2.10) Depending on the nature of each sample, all samples given to the Company shall be retained for a maximum of 3 months or for such other shorter time period as the nature of the sample permits, and then sent back to Client or otherwise disposed of at the Company's discretion. After that time the Company will not be responsible for the samples. Storage of samples for more than 3 months shall incur a storage fee payable by the Client. If sam-ples are returned to the Client, the Client will be billed a handing and freight fees. Special disposal charges will be billed to the Client if incurred.

Client's Obligations

The Client shall:

- (3.1) ensure that all required supporting documents, information and instructions as submitted are accurate, trueful and complete. These information are to be submitted in a timely not later than 2 working days from the date of which the services are requested by the or the services are requested by the
- ensure to give all necessary access for the Company's representatives to the premis-(3.2)es where the services are to be performed and to take all necessary steps to eliminate or reme-dy any dostades to, or interruptions in the performance of the services;
- make available any special equipment and personnel necessary for the performance of the services, if required; (3.3)
- (3.4) ensure that for the safety and security of working conditions, sites and installations, all nec-essary measures are taken during the performance of services. In this respect, the Client will not rely on the Company's advice whether required or not; inform the Company of any known hazards or dangers, actual or potential, associated
- (3.5)with any order, samples, testing or any other service rendered by the Company well in advance. Those are, but are not limited to the presence or risk of radiation, environ-
- mental pollution or poisons- toxic or noxious or explosive elements or materials; fully exercise all its rights and discharge all its liabilities under any relevant sales or other (3.6) contract with a third party.

Fees and Payment 4.

- (4.1) All Fees not agreed on between the Company and Client at the time the order is placed or a contract is concluded shall be determined by the Company's Schedule of Fees (which are subject to change). All applicable taxes shall be paid by Client, as far as mandatory laws do not provide otherwise. Unless a specific period is established in the invoice, the Client shall pay upon receiv
- (4.2)
- In the involce, but not later than 30 days from the relevant invoice date or within such other period as may be established by the Company in the invoice (the "Due Date"). The Client shall not be entitled to retain or defer due payment of any sums to the Company on account of any dispute, counter claim or set-off against the Company. The Company reserves the right to retain or defer any due payments if any dispute arises with or it raises any counterclaim against the (4.3)Client. The Company is entitled to set off due payments against payments of the Client

- For the collection of unpaid fees, the Company may decide to bring action in any court with competent jurisdiction. The corresponding collection costs, including at-torney's fees and related costs, shall be borne by the Client, as far as the manda-(4.4) tory local law does not provide otherwise.
- In case of any unforeseen problems or expenses arise while carrying out the ser-vices, the Company informs the Client. In such cases, the Company shall be enti-(4.5) ted to charge additional fees to cover extra time and to invoice extra costs necessarily incurred to complete the services.
- (4.6) If the Company is unable to perform all or parts of the services for any cause whatsoever beyond the Company's control, including the failure by Client to comply with any of its obligations provided for in the foregoing Clause 3, the Com-pany shall nevertheless be entitled to payments of:
 - The amount of all non-refundable expenses incurred by the Company; and (1) A proportion of the agreed fee equal to the proportion of the services actually carried out.

Suspension or Termination of Services 5.

In any case mentioned below, the Company shall be entitled to either suspend or minate the provision of the services immediately and without any liability: 1) Failure by the Client to comply with any of its obligations under these General

- (5.1) Terms and Conditions and such failure is not remedied within 10 days after a no-tice of such failure has been delivered to the Client; or
- Any suspension of payment, arrangement with creditors, bankruptcy, insol-vency, receivership or cessation of business by Client. (5.2)

6. Liability and Indemnification

- (6.1) <u>Limitation of Liability</u>.
 (1) Clients seeking a guarantee against loss or damage should obtain appropriate insurance. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
 - Reports of Findings are issued on the basis of the information, documents and/or samples provided by, or on behalf of the Client and solely for the benefit of the Client who is obliged to act on the basis of such Reports of Find-ings. Neither the Company nor any of its staff, agents or subcontractors shall be liable to the Client nor to any third party for any actions taken or not taken on the basis of such Reports of Findings, or for any incorrect results arising from unclear, erroneous, incomplete, misleading or false information pro-
 - trom unclear, erroneous, incomplete, misleading or talse information pro-vided to the Company. For any delayed, total or partial non-performance of the services arising directly or indirectly from any event beyond the Company's control, includ-ing failure by Client to comply with any of its obligations hereunder, the Company shall not be liable. The liability of the Company in respect of any claim for loss, damage or ex-(3)
 - (4) pense of any nature and howsoever arising shall in no circumstances ex-ceed a total aggregate sum equal to 10 times the amount of the fee paid in respect of the specific service which gives rise to such claim, and shall in any case not exceed the equivalent of 25,000 EUR in HKD.
 - For any indirect or consequential loss (including loss of profits), the Compa-ny shall not have any liabilities. In case of any claim, the Client must give written notice to the Compa-(5)
 - (6) ny within 30 days of discovery of the facts with all necessary documents to justify such claim. In any case, the Company shall be discharged from all liability for all claims for loss, damage or expense unless a lawsuit is brought within two years from:
 - the performance date of the Company for its services which refers to (i) the claim; or
- (ii) the date when the service should have been completed in the event of any alleged non-performance.
 (6.2) <u>Indemnification</u> Against all claims (actual or threatened) by any third party for loss, damage or expenses of whatsoever nature including all legal expenses and related costs and howsoever arising relating to the performance, purported per-formance or non-performance of any services, the Client shall guarantee, hold harmless and indemnify the Company and its officers, employees, agents or subcontractors

7. Obligation of Confidentiality, Copyright, Data Privacy Protection

- (7.1) The Company shall be authorized to make file copies of written documents, which have been made available to it for review and which are important for processing the order.
- Insofar as Reports of Findings are prepared in the course of processing the order (7.2) and which are subject to the protection of copyright, then the Company shall grant the Client a simple, non-transferable right to use, insofar as this is necessary and in accordance with the contractually presupposed purpose. Other rights shall not be transferred; in particular, the customer shall not be entitled to modify and/or edit audit reports or to make use of such outside of his business premises.
- The Company and its staff which may be called in shall not disclose or use trade and business matters about which they have gained knowledge during the per-(7.3)formance of their work without proper authorization, or unless instructed by a court or authorized body (e.g. regulatory authority, accreditation body or certification scheme owner) or otherwise legally required.

Miscellaneous 8.

- (8.1) The validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired, even if any one or more provisions of these General Conditions are found to be illegal or unenforceable in any respect.
- Client shall not directly or indirectly entice, encourage or make any offer to Company's employees to leave their employment with the Company, during
- the course of providing the services and for a period of one year thereafter. Use of the Company's corporate name or registered marks for advertising pur-(8.3) poses is not permitted without the Company's prior written authorization.

Governing Law, Jurisdiction and Dispute Settlement 9

- (9.1) Unless specifically agreed otherwise, all disputes arising out or in connection with contractual relationship(s) hereunder shall be governed by the applicable laws and regulations of the Hong Kong S.A.R Region.
 (9.2) Place of performance for any obligation arising out of this contract shall be Hong Kong, the Place of the TÜV SÜD Hong Kong Limited unless otherwise
- expressly agreed by the parties

10. Languages

In the event of any discrepancy between the English and the Chinese version of these General Terms and Conditions, the English version shall prevail.

