

# Test Report

No. SHAMPLP2101732204

Date: 01 Feb 2021

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Cardel Ltd

Unit 5, The Marquis Centre, Baldock, Hertfordshire, SG7 6XL, UK

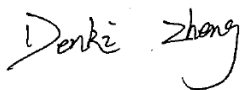
The following sample(s) was/were submitted and identified on behalf of the clients as : Hi Bond 70-B (HB70-B)

SGS Job No. : SHIN2012083421PC - SH  
 Lot No. : as per sample reel  
 Manufacturer : Cardel Ltd  
 Date of Sample Received : 26 Jan 2021  
 Testing Period : 26 Jan 2021 - 01 Feb 2021  
 Test Requested : Selected test(s) as requested by client.  
 Test Method : Please refer to next page(s).  
 Test Results : Please refer to next page(s).

Result Summary :

| Test Requested   | Conclusion  |
|--|-------------|
| RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU | See Results |
| Halogen  | See Results |
| US California Proposition 65- Lead content                             | PASS        |
| US California Proposition 65- Phthalate                                | PASS        |

Signed for and on behalf of  
 SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



Denki Zheng  
 Approved Signatory

scan to see the report



SHAMPLP2101732204



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Test Results :

Test Part Description :

| Specimen No. | SGS Sample ID    | Description      |
|--------------|------------------|------------------|
| SN1          | SHA21-017322.004 | Black solid film |

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 : With reference to IEC 62321-4:2013+AMD1:2017, IEC62321-5:2013, IEC62321-7-2:2017, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

| Test Item(s)                 | Limit | Unit  | MDL | 004 |
|------------------------------|-------|-------|-----|-----|
| Cadmium (Cd)                 | 100   | mg/kg | 2   | ND  |
| Lead (Pb)                    | 1000  | mg/kg | 2   | ND  |
| Mercury (Hg)                 | 1000  | mg/kg | 2   | ND  |
| Hexavalent Chromium (Cr(VI)) | 1000  | mg/kg | 8   | ND  |
| Sum of PBBs                  | 1000  | mg/kg | -   | ND  |
| Monobromobiphenyl            | -     | mg/kg | 5   | ND  |
| Dibromobiphenyl              | -     | mg/kg | 5   | ND  |
| Tribromobiphenyl             | -     | mg/kg | 5   | ND  |
| Tetrabromobiphenyl           | -     | mg/kg | 5   | ND  |
| Pentabromobiphenyl           | -     | mg/kg | 5   | ND  |
| Hexabromobiphenyl            | -     | mg/kg | 5   | ND  |
| Heptabromobiphenyl           | -     | mg/kg | 5   | ND  |
| Octabromobiphenyl            | -     | mg/kg | 5   | ND  |
| Nonabromobiphenyl            | -     | mg/kg | 5   | ND  |
| Decabromobiphenyl            | -     | mg/kg | 5   | ND  |
| Sum of PBDEs                 | 1000  | mg/kg | -   | ND  |
| Monobromodiphenyl ether      | -     | mg/kg | 5   | ND  |
| Dibromodiphenyl ether        | -     | mg/kg | 5   | ND  |
| Tribromodiphenyl ether       | -     | mg/kg | 5   | ND  |
| Tetrabromodiphenyl ether     | -     | mg/kg | 5   | ND  |
| Pentabromodiphenyl ether     | -     | mg/kg | 5   | ND  |
| Hexabromodiphenyl ether      | -     | mg/kg | 5   | ND  |
| Heptabromodiphenyl ether     | -     | mg/kg | 5   | ND  |



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# Test Report

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| <u>Test Item(s)</u>               | <u>Limit</u> | <u>Unit</u> | <u>MDL</u> | <u>004</u> |
|-----------------------------------|--------------|-------------|------------|------------|
| Octabromodiphenyl ether           | -            | mg/kg       | 5          | ND         |
| Nonabromodiphenyl ether           | -            | mg/kg       | 5          | ND         |
| Decabromodiphenyl ether           | -            | mg/kg       | 5          | ND         |
| Di-butyl Phthalate (DBP)          | 1000         | mg/kg       | 50         | ND         |
| Benzyl Butyl Phthalate (BBP)      | 1000         | mg/kg       | 50         | ND         |
| Di-2-Ethyl Hexyl Phthalate (DEHP) | 1000         | mg/kg       | 50         | ND         |
| Diisobutyl Phthalates (DIBP)      | 1000         | mg/kg       | 50         | ND         |

**Notes :**

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863. IEC 62321 series is equivalent to EN 62321 series  
[https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:1258637,25](https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101:::FSP_ORG_ID,FSP_LANG_ID:1258637,25)
- (2) 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.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall not apply to toys which are already subject to the restriction of DEHP, BBP, DBP and DIBP through entry 51 of Annex XVII to Regulation (EC) No 1907/2006.

**Halogen**

Test Method : With reference to EN 14582: 2016 , analysis was performed by IC.

| <u>Test Item(s)</u> | <u>Unit</u> | <u>MDL</u> | <u>004</u> |
|---------------------|-------------|------------|------------|
| Chlorine (Cl)       | mg/kg       | 50         | ND         |
| Bromine (Br)        | mg/kg       | 50         | ND         |

**US California Proposition 65- Lead content**

Test Method : With reference to CPSC Test Method: CPSC-CH-E1002-08.3. Analysis was performed by AAS.

| <u>Test Item(s)</u> | <u>Limit</u> | <u>Unit</u> | <u>MDL</u> | <u>004</u>  |
|---------------------|--------------|-------------|------------|-------------|
| Lead (Pb)           | 100          | mg/kg       | 20         | ND          |
| <b>Conclusion</b>   |              |             |            | <b>PASS</b> |

**Notes :**

- (1) The limit is referenced to the requirement stated in County of Alameda Superior Court, RG 10-530436 and 10-530300.



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(2) The reference limit applied in testing is based on particular prop 65 settlements that are most similar to the tested product in the opinion of the lab. The testing in this report does not reflect a user's actual exposure to the tested chemical.

A manufacturer or retailer that is not named in the referenced settlement is not bound by that settlement, and may choose to comply with Proposition 65 by clearly informing the consumer of potential exposure.

**US California Proposition 65- Phthalate**

Test Method : With reference to CPSC-CH-C1001-09.4(2018), analysis was performed by GC-MS.

| Test Item(s)   | CAS NO.                   | Limit | Unit  | MDL | 004 |
|--|---------------------------|-------|-------|-----|-----|
| Dibutyl Phthalate (DBP)                                      | 84-74-2                   | 600   | mg/kg | 50  | ND  |
| Benzylbutyl Phthalate (BBP)                                  | 85-68-7                   | 600   | mg/kg | 50  | ND  |
| Di(2-ethylhexyl)phthalate/Bis(2-ethylhexyl) phthalate (DEHP) | 117-81-7                  | 600   | mg/kg | 50  | ND  |
| Diisononyl Phthalate (DINP)                                  | 28553-12-0<br>/68515-48-0 | 1000  | mg/kg | 50  | ND  |
| Di-n-octyl Phthalate (DNOP)                                  | 117-84-0                  | 1000  | mg/kg | 50  | ND  |
| Diisodecyl Phthalate (DIDP)                                  | 26761-40-0<br>/68515-49-1 | 600   | mg/kg | 50  | ND  |
| Di-n-hexyl Phthalate (DnHP)                                  | 84-75-3                   | 600   | mg/kg | 50  | ND  |
| Dicyclohexyl Phthalates (DCHP)                               | 84-61-7                   | 1000  | mg/kg | 50  | ND  |
| Diisobutyl Phthalates (DIBP)                                 | 84-69-5                   | 1000  | mg/kg | 50  | ND  |
| Di-n-pentyl Phthalates (DPENP)                               | 131-18-0                  | 1000  | mg/kg | 50  | ND  |

**Conclusion**

**PASS**

Notes :

(1) The limit is referenced to the requirement as stated in Marin County Superior Court, CIV-10-00641, County of Santa Clara Superior Court, 114CV267501 and CPSIA&16 CFR 1307.

(2) The reference limit applied in testing is based on particular California Proposition 65 settlements that are most similar to the tested product in the opinion of the lab. The testing in this report does not reflect a user's actual exposure to the tested chemical.

A manufacturer or retailer that is not named in the referenced settlement is not bound by that settlement, and may choose to comply with California Proposition 65 by clearly informing the consumer of potential exposure.



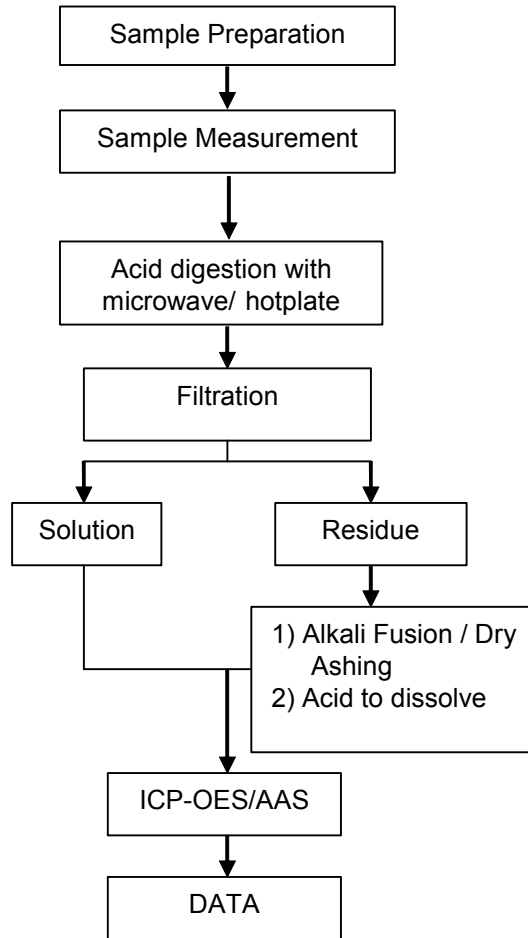
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Elements (IEC62321) Testing Flow Chart

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



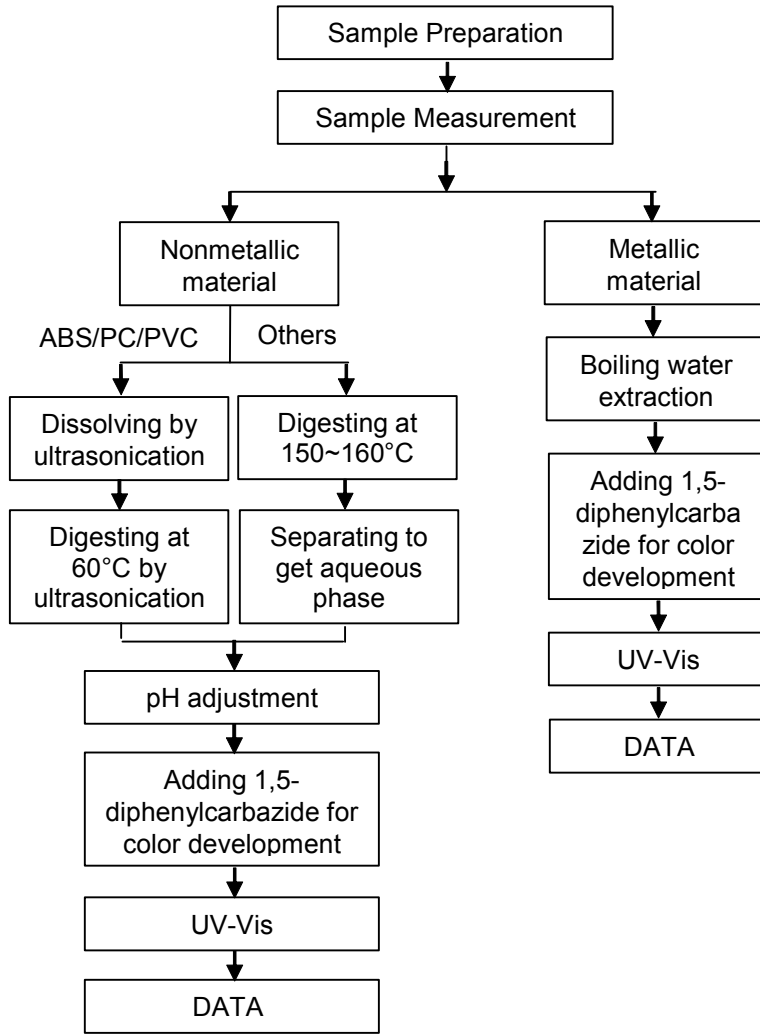
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Hexavalent Chromium (Cr(VI)) Testing Flow Chart

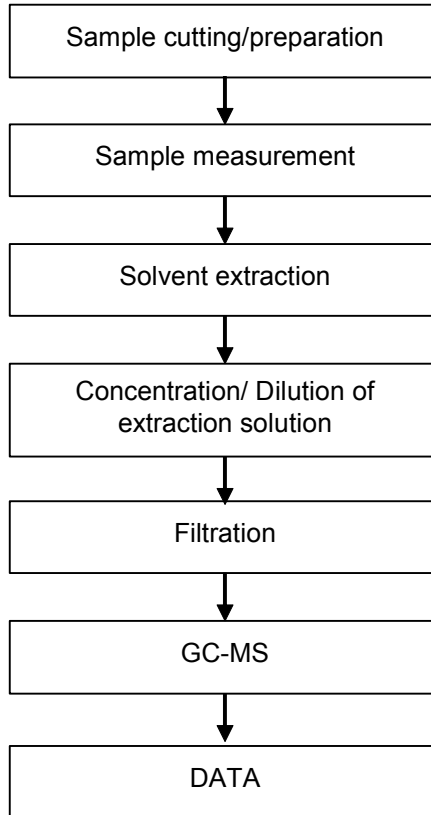


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PBBs/PBDEs Testing Flow Chart

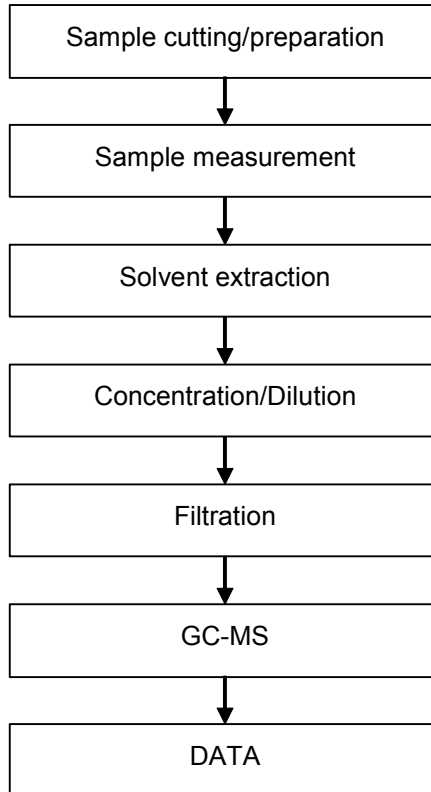


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Phthalates Testing Flow Chart



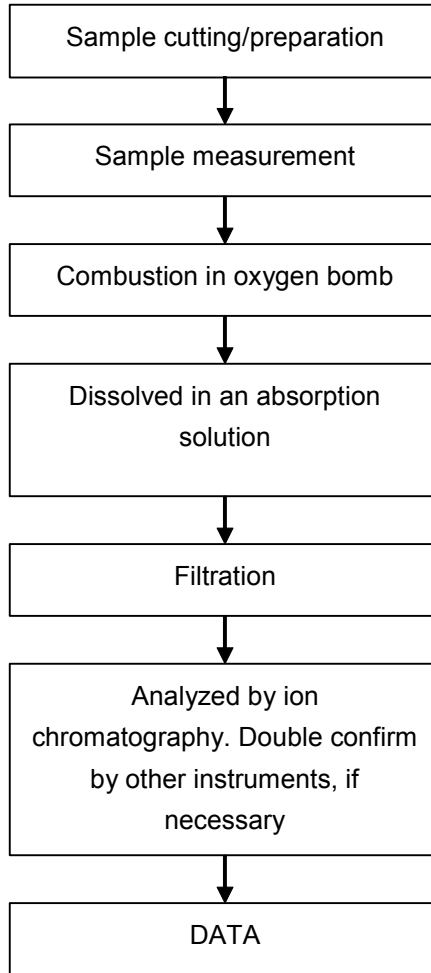
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Halogen Testing (oxygen bomb) Flow Chart



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