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# Test Report

No. : CE/2012/44377 Date : 2012/04/26 Page : 1 of 5

FORMOSA CHEMICALS & FIBRE CORPORATION
201, TUNG HWA N. ROAD, TAIPEI, TAIWAN, R. O. C.

**The following sample(s) was/were submitted and identified by/on behalf of the client as :**

| | | |
|---|---|---|
| Sample Description | : | POLYPROPYLENE HOMO POLYMER |
| Style/Item No. | : | TAIRIPRO PP B1101, F1611, F2003, F2011, K1011, K1023, K1035, K1060, K1108, K1525, K2038, K2051, K2065, S1003, S1005, S1019, S1023, S1040, S1803, S2023, S2035, S2123, T1002, T1202, T2502 |
| Sample Receiving Date | : | 2012/04/20 |
| Testing Period | : | 2012/04/20 TO 2012/04/26 |

==========

| | | |
|---|---|---|
| **Test Requested** | : | To determine Polynuclear Aromatic Hydrocarbons (PAHs). |
| **Test Result(s)** | : | Please refer to next page(s). |
| **Conclusion** | : | Base upon the performed tests by submitted samples, the test results of PAHs comply with the PAHs requirement according to (Category 1) of ZEK 01.4-08 of German ZLS and its amendments. |

SGS TAIWAN LTD

Edison Chang / Sr. Supervisor
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

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**Test Result(s)**

PART NAME No.1 : TRANSLUCENT-WHITE PLASTIC PELLETS

| Test Item(s) | Unit | Method | MDL | Result No.1 |
|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons (PAHs)** | | | | |
| Acenaphthene (CAS No.: 83-32-9) | mg/kg | With reference to ZLS standard ZEK 01.4-08 method. Analysis was performed by GC/MS. | 0.2 | n.d. |
| Acenaphthylene (CAS No.: 208-96-8) | | | 0.2 | n.d. |
| Anthracene (CAS No.: 120-12-7) | | | 0.2 | n.d. |
| Benzo[a]anthracene (CAS No.: 56-55-3) | | | 0.2 | n.d. |
| Benzo[a]pyrene (CAS No.: 50-32-8) | | | 0.2 | n.d. |
| Benzo[b]fluoranthene (CAS No.: 205-99-2) | | | 0.2 | n.d. |
| Benzo[g,h,i]perylene (CAS No.: 191-24-2) | | | 0.2 | n.d. |
| Benzo[k]fluoranthene (CAS No.: 207-08-9) | | | 0.2 | n.d. |
| Chrysene (CAS No.: 218-01-9) | | | 0.2 | n.d. |
| Dibenzo[a,h]anthracene (CAS No.: 53-70-3) | | | 0.2 | n.d. |
| Fluoranthene (CAS No.: 206-44-0) | | | 0.2 | n.d. |
| Fluorene (CAS No.: 86-73-7) | | | 0.2 | n.d. |
| Indeno[1,2,3-c,d] pyrene (CAS No.: 193-39-5) | | | 0.2 | n.d. |
| Naphthalene (CAS No.: 91-20-3) | | | 0.2 | n.d. |
| Phenanthrene (CAS No.: 85-01-8) | | | 0.2 | n.d. |
| Pyrene (CAS No.: 129-00-0) | | | 0.2 | n.d. |
| Benzo[j]fluoranthene (CAS No.: 205-82-3) | | | 0.2 | n.d. |
| Benzo[e]pyrene (CAS No.: 192-97-2) | | | 0.2 | n.d. |
| **Sum of 18 PAHs** | | | - | n.d. |

**Note：**

1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. " - " = Not Regulated

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**Reference information:**

**Requirement of ZEK 01.4-08 : Restraining maximum values for products**

| Parameter | Category 1 | Category 2 | Category 3 |
|---|---|---|---|
| | Material indented to be put in the mouth or toys for children aged < 36 months with intended skin contact. | Materials not falling under category 1 with foreseeable contact to skin for longer than 30 seconds (long-term skin contact). | Materials not falling under category 1 or 2 with foreseeable contact to skin for less than 30 seconds (short-term skin contact). |
| Benzo[a]pyrene (mg/kg) | <MDL (<0.2)** | 1 | 20 |
| Sum of 18 PAH (mg/kg)* | <MDL (<0.2)** | 10 | 200 |

**Remark :**

* = Only PAH substances >0.2 mg/kg are taken into account while calculating the sum of PAHs

** = If the limits of category 1 are surpassed but the limits of category 2 still met, the confirmation of suitability of contact with foodstuff or the oral mucosa can be verified by an additional specific migration test of the PAH components according to EN 1186 ff. and § 64 LFBG 80.30-1. The results of the migration test shall be evaluated according to law criteria for foodstuff.

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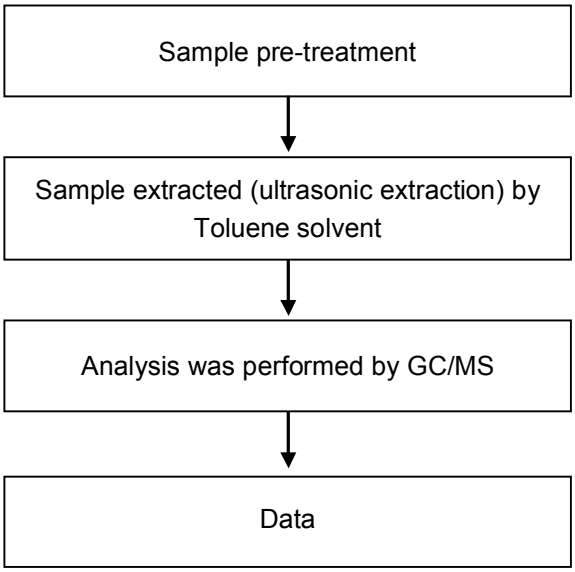
**PAHs (Polynuclear Aromatic Hydrocarbons) analytical flow chart**

- Name of the person who made measurement: Roman Wong
- Name of the person in charge of measurement: Troy Chang

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*** The tested sample / part is marked by an arrow if it's shown on the photo. ***

## CE/2012/44377

** End of Report **


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