

**Test Report****Report No: TJAFF150100083E-1c-S1****Date: Mar 18 2015**

Client name: Jinhui ZhaoLong High Technology Co.,Ltd  
Client address: Xiaoyi Economic Development Zone,Shanxi,PR.China  
\*Sample name: Ecoworld® PBAT  
Batch No.: /  
Product Date: 2014.11.30  
Manufacturer: Jinhui ZhaoLong High Technology Co.,Ltd

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**Above information and sample(s) was/were submitted and certified by the client, SGS quoted the information with no responsibility as to the accuracy, adequacy and/or completeness.**

SGS Sample No.: TJAFF150100083-1  
SGS reference No.: TSNFD1500033701  
Date of sample received: Jan 08 2015  
Testing period: Jan 12 2015 ~ Jan 27 2015

**TEST(S) REQUESTED:**

In accordance with Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments, to determine overall migration, to determine specific migration of 1,4-Butanediol, to determine specific migration of heavy metal

**TEST METHOD(S):**

Please refer to the next page(s)

**TEST RESULT(S):**

Please refer to the next page(s)

**Conclusion:**

The tested parameters comply with the requirements stated in Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments and Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004.

**Remark:** This test report has been drafted in Chinese and maybe translated into other languages, The Chinese version shall prevail.

**Remark:** \* Information was modified by the request of the client after test report/testing summary was issued.

**THIS REPORT IS TO SUPERSEDE TEST REPORT TJAFF150100083E-1c.**

**The results shown in this test summary refer only to the sample(s) tested, and for clients internal use only.**



SGS Authorized Signature

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**TEST METHOD(S):**

- 1) With reference to Commission Regulation (EU) No 10/2011 of 14 January 2011 Annex III and Annex V for selection of condition and EN 1186-1:2002 for selection of test methods; EN1186-3:2002 aqueous food simulants by total immersion method; EN1186-2:2002 olive oil by total immersion method;
- 2) With reference to EN13130-1: 2004, analysis was performed by GC-MS.
- 3) With reference to EN13130-1:2004, analysis was performed by ICP-OES.

**TEST RESULT(S):**

1) Overall migration:

Simulant Used	Time	Temperature	Max. Permissible Limit	Overall Migration
3% Acetic Acid (W/V) Aqueous Solution	240.0hr(s)	20°C	10mg/dm <sup>2</sup>	5.1mg/dm <sup>2</sup>
10% Ethanol (V/V) Aqueous Solution	240.0hr(s)	20°C	10mg/dm <sup>2</sup>	< 3.0 mg/dm <sup>2</sup>
Rectified Olive Oil	240.0hr(s)	20°C	10mg/dm <sup>2</sup>	< 3.0 mg/dm <sup>2</sup>

- Remark:**
1. Analytical tolerance of aqueous simulants is 1 mg/dm<sup>2</sup>
  2. Analytical tolerance of fatty food simulants is 3 mg/dm<sup>2</sup>
  3. Test condition & simulant were specified by client.

2) Specific migration of 1,4-Butanediol:

Simulant Used: 3% Acetic acid (W/V) aqueous solution

Test Condition: 40°C 1hr(s)

Test Item	Max. Permissible Limit	Unit	Method Detection limit	Test Result
Specific migration of 1,4-Butanediol	5	mg/kg	1	Not Detected

**Remark:** Test condition & simulant were specified by client.

3) Specific migration of heavy metal:

Simulant Used: 3% Acetic Acid (W/V) Aqueous Solution

Test Condition: 40°C 1.0hr(s)

Test Item(s)	Max. Permissible Limit	Unit	Method Detection limit(s)	Test Result
Barium	1	mg/kg	0.25	Not Detected
Cobalt	0.05	mg/kg	0.01	Not Detected
Copper	5	mg/kg	0.25	Not Detected
Iron	48	mg/kg	0.25	Not Detected
Lithium	0.6	mg/kg	0.5	Not Detected
Manganese	0.6	mg/kg	0.25	Not Detected
Zinc	25	mg/kg	0.5	Not Detected

**Remark:** Test condition & simulant were specified by client.



**SAMPLE DESCRIPTION:** Transparent plastic film



\*\*\* End of Report\*\*\*

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