Test Report

No.HKHL1303023354JL Date: MAR 22, 2013

LOTTECHEMICAL CORPORATION
#24-1, JANG-DONG, YUSEONG-GU, DAEJEON, KOREA

The following samples were submitted and identified on behalf of the client as:

HOPELEX

SGS Case No. : HKHL130300013546
SGS Ref. No. : AYAA13-11180
Style / Item No. : PC-1100

Sample Receiving Date : MAR 07, 2013
Test Performing Date : MAR 07 – 21, 2013

Test Requested : Please refer to the result summary.

Test Method & Results : Please refer to next page(s).

Result Summary :

Test Requested	Conclusion
1. German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 31.	**--**
Sensorial examination odour and taste test	PASS
2. German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30, European Commission Regulation (EU) No 10/2011 and BfR recommendation.	**--**
Plastic – Lead and Cadmium	PASS
3. European Commission Regulation (EU) No 10/2011	**--**
a) Plastic – Overall migration	PASS
b) Plastic – Specific migration of Primary Aromatic Amine	PASS
c) Plastic – Specific Migration of Heavy Metals	PASS
d) PC – Specific migration of Bisphenol A	PASS

Signed for and on behalf of
SGS Hong Kong Ltd.

Che Wai Leuk, Jerry
Section Manager

Test Results :

1. German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 31.

Sensory examination – odour and taste test

Method : With reference to DIN10955:2004-06.

Test Item	Result	Permissible Limit
	1	
Sensorial examination odour (Intensity scale)	1.0	2.5
Sensorial examination taste (Intensity scale)	1.0	2.5
Comment	PASS	--

Sample Description :
1. Transparent Plastic

Note : Intensity scale :
0 – no perceptible deviation
1 – deviation just perceptible
2 – moderate deviation
3 – distinct deviation
4 – large deviation

2. German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30, European Commission Regulation (EU) No 10/2011 and BfR recommendation.

Plastic – Lead and Cadmium

Method : i) Lead content : Acid digestion followed by analysis with Atomic Absorption Spectrometry.
ii) Cadmium content : With reference to EN 1122:2001, Method B

Test Item	Result (mg/kg)	Reporting Limit (mg/kg)	Reference Limit (mg/kg)
	1		
Lead content	ND	2	Absent
Cadmium content	ND	2	Absent
Comment – Lead and Cadmium	PASS	--	--

Sample Description :
1. Transparent Plastic

Note : 1. Lead and Cadmium content: mg/kg = milligram per kilogram
2. ND = Not Detected
3. When lead or/and cadmium is/are found to be present but feasibly low in value to migrate, migratable lead or cadmium will be determined to evaluate its compliance.

Test Results (Con't) :

3. European Commission Regulation (EU) No 10/2011

a) Plastic – Overall migration

Method : With reference to EN 1186-1:2002 for selection of conditions and test methods;
EN 1186-3:2002 aqueous food simulants by total immersion method;
EN 1186-2:2002 olive oil by total immersion method;

Simulant Used	Test Condition	Result (mg/dm^2)	Reporting Limit (mg/dm^2)	Permissible Limit (mg/dm^2)
		1		
Deionized Water	10 days at 40℃	ND	3.0	10
3% Acetic Acid (W/V) Aqueous Solution	10 days at 40℃	ND	3.0	10
10% Ethanol (V/V) Aqueous Solution	10 days at 40℃	ND	3.0	10
Rectified Olive Oil	10 days at 40℃	ND	3.0	10
Comment	--	PASS	--	--

Sample Description :
1. Transparent Plastic

Note : 1. mg/dm^2 = milligram per square decimeter
2. ℃ = degree Celsius
3. ND = Not Detected

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

Test Results (Con't) :

b) Plastic – Specific Migration of Primary Aromatic Amine

Method : Sample preparation in 3% acetic acid (w/v) in aqueous solution at 40℃ for 10 days with reference to EN 13130-1:2004; followed by analysis with reference to DIN 55610:1986.

Test Item	Result (mg/kg)	Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
	1		
Specific migration of Aromatic Amine	ND	0.002	0.01
Comment	PASS	--	--

Sample Description :
1. Transparent Plastic

Note : 1. mg/kg = milligram per kilogram of foodstuff in contact with
2. ℃ = degree Celsius
3. ND = Not Detected

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

c) Plastic – Specific Migration of Heavy Metals

Method: Sample preparation in 3% acetic acid (w/v) in aqueous solution at 40℃ for 10 days with reference to EN 13130-1:2004; followed by analysis using Inductively Coupled Argon Plasma Spectrometry (ICP).

Test Item	Result (mg/kg)	Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
	1		
Specific Migration of Barium	ND	0.25	1
Specific Migration of Cobalt	ND	0.03	0.05
Specific Migration of Copper	ND	0.25	5
Specific Migration of Iron	ND	0.25	48
Specific Migration of Lithium	ND	0.5	0.6
Specific Migration of Manganese	ND	0.25	0.6
Specific Migration of Zinc	ND	0.5	25
Comment	PASS	--	--

Sample Description :
1. Transparent Plastic

Note : 1. mg/kg = milligram per kilogram of foodstuff in contact with
2. ℃ = degree Celsius
3. ND = Not Detected

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

Test Results (Con't) :

d) PC – Specific Migration of Bisphenol A

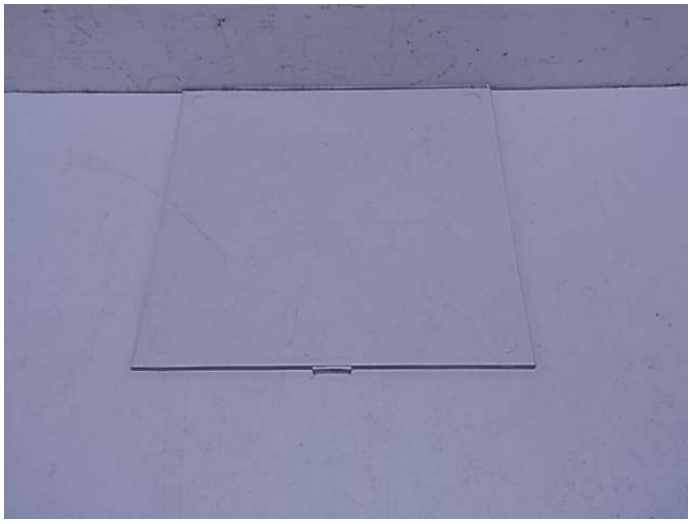
Method : Sample preparation in 3% acetic acid (w/v) in aqueous solution at 40℃ for 10 days with reference to EN 13130-1:2004; followed by analysis using Liquid Chromatography – Mass Spectrometry (LC-MS).

Test Item	Result (mg/kg)	Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
	1		
Specific Migration of Bisphenol A	ND	0.2	0.6
Comment	PASS	--	--

Sample Description :
1. Transparent Plastic

Note : 1. mg/kg = milligram per kilogram of foodstuff in contact with
2. ND = Not Detected

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



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