



## FLASHBAY ELECTRONICS

**Technical Report:** (8820)359-0080(B)

Date Received: Dec 24, 2020

Apr 15, 2021

Page 1 of 15

FLASHBAY ELECTRONICS  
BUILDING 2,JIXUN INDUSTRIAL PARK,DONG'AO  
VILLAGE,SHATIAN TOWN,HUIYANG DISTRICT,  
HUIZHOU CITY,GUANGDONG PROVINCE,P.R.CHINA

Sample Description:	Travel Cups	Sample Size:	3 PCS
Vendor:	N/A	Style No(s):	EcoSip(EP)
Manufacturer:	FLASHBAY ELECTRONICS	SKN/SKU No.:	NOT PROVIDE
Labeled Age Grade:	NOT RECORD	PO No.:	NOT PROVIDE
Appropriate Age Grade:	NOT REQUESTED	Ref #:	NOT PROVIDE
Client Specified Age Grade:	NOT SPECIFIED		
Tested Age Grade:	N/A	Country of Origin:	NOT PROVIDE
UPC Code:	N/A	Assortment No.:	NOT PROVIDE
		Country of Destination :	NOT PROVIDE
Test Starting Date:	DEC 24, 2020	Test Finished Date:	APR 15, 2021

### EXECUTIVE SUMMARY:

The sample(s) MEETS the following requirement(s):

- Overall Migration Test for Plastic Materials in Contact with Foodstuffs – Commission Regulation (EU) No. 10/2011 and Its Amendments.
- Specific Migration of Primary Aromatic Amine for Plastic Materials in Contact with Foodstuffs – Commission Regulation (EU) No. 10/2011 and Its Amendments.
- Specific Migration of Heavy Metals for Plastic Materials in Contact with Foodstuffs – Commission Regulation (EU) No. 10/2011 and Its Amendments.

To be continued



BUREAU VERITAS SHENZHEN CO.,LTD  
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### REMARK

If there are questions or concerns on this report, please contact the following persons:

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**EXECUTIVE SUMMARY:**

The sample(s) MEETS the following requirement(s):

- Overall Migration Test for Rubber in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)4.
- Specific Migration of Aromatic Amines for Rubber in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)4.
- Overall Migration Test for Silicone in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)5.
- Migration of Nitrosamines and Nitrosatable Substances Content for Rubber in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)4.
- Migration of Heavy Metals Contents for Metal in Contact with Foodstuffs .

**Tested Component(s) Description List:**

Sample ID	Component	Location(s)	Style	Client Claimed Material
I001	Black plastic	Lid	-	PP
I002	Black soft plastic	Stopper	-	TPR
I003	Transparent soft plastic	Gasket	-	Silicone
I004	Silver metal	Body	-	SUS304



**RESULTS:**

**Overall Migration Test for Plastic Materials in Contact with Foodstuffs – Commission Regulation (EU) No. 10/2011 and Its Amendments**

Test Condition: OM 3: 2 h at 70 °C (3% Acetic acid/ 50% Ethanol)

Simulant Used	Unit	Result	Maximum Allowable Limit	Analytical Tolerance
		I001		
Food contact surface area	dm <sup>2</sup>	0.6	-	-
Volume of stimulant used	mL	100	-	-
50% Ethanol	mg/dm <sup>2</sup>	<5	10	+2
3% Acetic acid	mg/dm <sup>2</sup>	<5		
<b>Conclusion</b>	-	PASS	-	-

Note: "<" = less than  
mg/dm<sup>2</sup> = milligram per square decimeter

Method: EN 1186-1: 2002;

Remark: 1) The migration test is carried out according to EU regulation No. 10/2011 and the corresponding regulatory statutes.

2) For article intended for repeated use, the migration tests are carried out three times on the same test sample and the third test result is shown in result table.



**RESULTS:**

**Specific Migration of Primary Aromatic Amine for Plastic Materials in Contact with Foodstuffs – Commission Regulation (EU) No. 10/2011 and Its Amendments**

Test Condition: 2 h at 70 °C (3% Acetic acid)

Parameter	Simulant Used	Unit	Result	Maximum Allowable Limit
			I001	
Food contact surface area	-	dm <sup>2</sup>	0.6	-
Volume of stimulant used	-	mL	100	-
Primary Aromatic Amine	3% Acetic acid	mg/kg	<0.01	0.01
<b>Conclusion</b>	-	-	PASS	-

Note: “<” = less than  
mg/kg = milligram per kilogram

Method: EN 13130-1: 2004, LC-MS/MS analysis.

Remark: 1) The migration test is carried out according to EU regulation No. 10/2011 and the corresponding regulatory statutes.

2) For article intended for repeated use, only single determination is carried out in the migration tests and the test result is shown in result table.



**RESULTS:**

**Specific Migration of Heavy Metals for Plastic Materials in Contact with Foodstuffs – Commission Regulation (EU) No. 10/2011 and Its Amendments**

Test Condition: 2 h at 70 °C (3% Acetic acid)

Parameter	Simulant Used	Unit	Result	Maximum Allowable Limit
			I001	
Food contact surface area	-	dm <sup>2</sup>	0.6	-
Volume of stimulant used	-	mL	100	-
Barium (Ba)	3% Acetic acid	mg/kg	<0.1	1
Cobalt (Co)	3% Acetic acid	mg/kg	<0.005	0.05
Copper (Cu)	3% Acetic acid	mg/kg	<0.5	5
Iron (Fe)	3% Acetic acid	mg/kg	<5	48
Lithium (Li)	3% Acetic acid	mg/kg	<0.1	0.6
Manganese (Mn)	3% Acetic acid	mg/kg	<0.1	0.6
Zinc (Zn)	3% Acetic acid	mg/kg	<3	5
Aluminum (Al)	3% Acetic acid	mg/kg	<0.1	1
Nickel (Ni)	3% Acetic acid	mg/kg	<0.002	0.02
<b>Conclusion</b>	-	-	PASS	-

Note: “<” = less than  
 mg/kg = milligram per kilogram

Method: EN 13130-1: 2004 and analysis by Inductively Coupled Plasma Mass Spectrometer (ICP-MS).

Remark: 1) The migration test is carried out according to EU regulation No. 10/2011 and the corresponding regulatory statutes.

2) For article intended for repeated use, the migration tests are carried out three times on the same test sample and the third test result is shown in result table.



**RESULTS:**

**Overall Migration Test for Rubber in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)4**

Test Condition: OM 3: 2 h at 70 °C (3% Acetic acid)  
OM 3: 2 h at 70 °C (50% Ethanol)

Simulant Used	Unit	Result	Maximum Allowable Limit	Analytical Tolerance
		1002		
Food contact surface area	dm <sup>2</sup>	0.6	-	-
Volume of stimulant used	mL	100	-	-
3% Acetic acid	mg/dm <sup>2</sup>	<5	10	+2
50% Ethanol	mg/dm <sup>2</sup>	<5		
<b>Conclusion</b>	-	PASS	-	-

Note: “<” = less than  
mg/dm<sup>2</sup> = milligram per square decimeter

Method: EN 1186-1: 2002;

Remark: 1) The migration test is carried out according to EU regulation No. 10/2011 and the corresponding regulatory statutes.

2) For article intended for repeated use, the migration tests are carried out three times on the same test sample and the third test result is shown in result table.



**RESULTS:**

**Specific Migration of Aromatic Amines for Rubber in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)4**

Test Condition: 2 h at 70 °C (3% Acetic acid)

Parameter	Simulant Used	Unit	Result	Maximum Allowable Limit
			I002	
Food contact surface area	-	dm <sup>2</sup>	0.6	-
Volume of stimulant used	-	mL	100	-
Primary Aromatic Amine	3% Acetic acid	mg/kg	<0.01	0.01
<b>Conclusion</b>	-	-	PASS	-

Note: “<” = less than  
mg/kg = milligram per kilogram

Method: EN 13130-1: 2004 and Draft EN 13130-XX:2004.

Remark: 1) The migration test is carried out according to EU regulation No. 10/2011 and the corresponding regulatory statutes.

2) For article intended for repeated use, only single determination is carried out in the migration tests and the test result is shown in result table.



**RESULTS:**

**Overall Migration Test for Silicone in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)5**

Test Condition: OM 3: 2 h at 70 °C (3% Acetic acid)  
OM 3: 2 h at 70 °C (50% Ethanol)

Simulant Used	Unit	Result	Maximum Allowable Limit	Analytical Tolerance
		I003		
Food contact surface area	dm <sup>2</sup>	3.0	-	-
Volume of stimulant used	mL	500	-	-
3% Acetic acid	mg/dm <sup>2</sup>	<5	10	+2
50% Ethanol	mg/dm <sup>2</sup>	<5		
<b>Conclusion</b>	-	PASS	-	-

Note: "<" = less than  
mg/dm<sup>2</sup> = milligram per square decimeter

Method: EN 1186-1: 2002;

Remark: 1) The migration test is carried out according to EU regulation No. 10/2011 and the corresponding regulatory statutes.

2) For article intended for repeated use, the migration tests are carried out three times on the same test sample and the third test result is shown in result table.





**RESULTS:**

**Migration of Nitrosamines and Nitrosatable Substances Content for Rubber in Contact with Foodstuffs – Council of Europe, Resolution ResAP(2004)4^^**

Test Condition: 2h at 70 °C (3% Acetic acid /50% Ethanol)

Parameter	Simulant Used	Unit	Result	Maximum Allowable Limit
			I002	
Food contact surface area	-	dm <sup>2</sup>	0.60	-
Volume of stimulant used	-	mL	100	-
Nitrosamines	3% Acetic acid	mg/kg	<0.01	0.01
	50% Ethanol	mg/kg	<0.01	0.01
Nitrosatable Substances	3% Acetic acid	mg/kg	<0.1	0.1
	50% Ethanol	mg/kg	<0.1	0.1
<b>Conclusion</b>		-	PASS	-

Note: “<” = less than  
mg/kg = milligram per kilogram

Method: EN 13130-1:2004 and EN 12868:2017.

Remark:  
- “^^”The above result were performed at Bureau Veritas (Shanghai) laboratory.



**RESULTS:**

**Migration of Heavy Metals Contents for Metal in Contact with Foodstuffs**

Test Condition: Artificial tap water: 70 °C, 2 hrs

Parameter	Unit	Result			Seven Times of Maximum Specific Release Limit(s) (SRLs) <sup>[a, b]</sup>
		I004			
		1st Migrate	2nd Migrate	Sum of 1st & 2nd Migrate <sup>[b]</sup>	
Filling volume	cm <sup>3</sup>	500	500	500	-
Volume of stimulant used	mL	500	500	500	-
Aluminum (Al)	mg/kg	<0.1	<0.1	<0.1	35
Antimony (Sb)	mg/kg	<0.004	<0.004	<0.004	1.4
Chromium (Cr)	mg/kg	<0.1	<0.1	<0.1	7.0
Cobalt (Co)	mg/kg	<0.005	<0.005	<0.005	0.7
Copper (Cu)	mg/kg	<0.5	<0.5	<0.5	28
Iron (Fe)	mg/kg	<5	<5	<5	280
Magnesium (Mg)	mg/kg	<0.5	<0.5	<0.5	-
Manganese (Mn)	mg/kg	<0.1	<0.1	<0.1	12.6
Molybdenum (Mo)	mg/kg	<0.01	<0.01	<0.01	4.2
Nickel (Ni)	mg/kg	<0.02	<0.02	<0.02	4.9
Silver (Ag)	mg/kg	<0.01	<0.01	<0.01	0.56
Tin (Sn)	mg/kg	<5	<5	<5	700
Titanium (Ti)	mg/kg	<0.5	<0.5	<0.5	-
Vanadium (V)	mg/kg	<0.002	<0.002	<0.002	0.35
Zinc (Zn)	mg/kg	<1	<1	<1	35
Arsenic (As)	mg/kg	<0.001	<0.001	<0.001	0.07
Barium (Ba)	mg/kg	<0.1	<0.1	<0.1	8.4
Beryllium (Be)	mg/kg	<0.001	<0.001	<0.001	0.35
Cadmium (Cd)	mg/kg	<0.001	<0.001	<0.001	0.14
Lead (Pb)	mg/kg	<0.002	<0.002	<0.002	0.28
Lithium (Li)	mg/kg	<0.01	<0.01	<0.01	0.336
Mercury (Hg)	mg/kg	<0.0004	<0.0004	<0.0004	0.105
Thallium (Tl)	mg/kg	<0.00005	<0.00005	<0.00005	0.0035
<b>Conclusion</b>	-	-	-	PASS	-



**RESULTS:**

Parameter	Unit	Result	Maximum Specific Release Limit(s) (SRLs) <sup>[a]</sup>
		I004	
		3rd Migrate	
Filling volume	cm <sup>3</sup>	500	-
Volume of stimulant used	mL	500	-
Aluminum (Al)	mg/kg	<0.1	5
Antimony (Sb)	mg/kg	<0.004	0.2
Chromium (Cr)	mg/kg	<0.1	1.0
Cobalt (Co)	mg/kg	<0.005	0.1
Copper (Cu)	mg/kg	<0.5	4
Iron (Fe)	mg/kg	<5	40
Magnesium (Mg)	mg/kg	<0.5	-
Manganese (Mn)	mg/kg	<0.1	1.8
Molybdenum (Mo)	mg/kg	<0.01	0.6
Nickel (Ni)	mg/kg	<0.02	0.7
Silver (Ag)	mg/kg	<0.01	0.08
Tin (Sn)	mg/kg	<5	100
Titanium (Ti)	mg/kg	<0.5	-
Vanadium (V)	mg/kg	<0.002	0.05
Zinc (Zn)	mg/kg	<1	5
Arsenic (As)	mg/kg	<0.001	0.01
Barium (Ba)	mg/kg	<0.1	1.2
Beryllium (Be)	mg/kg	<0.001	0.05
Cadmium (Cd)	mg/kg	<0.001	0.02
Lead (Pb)	mg/kg	<0.002	0.04
Lithium (Li)	mg/kg	<0.01	0.048
Mercury (Hg)	mg/kg	<0.0004	0.015
Thallium (Tl)	mg/kg	<0.00005	0.0005
<b>Conclusion</b>	-	PASS	-



**RESULTS:**

Test Condition: 0.5 % Citric acid: 70 °C, 2 hr

Parameter	Unit	Result			Seven Times of Maximum Specific Release Limit(s) (SRLs) <sup>[a, b]</sup>
		I004			
		1st Migrate	2nd Migrate	Sum of 1st & 2nd Migrate <sup>[b]</sup>	
Filling volume	cm <sup>3</sup>	500	500	500	-
Volume of stimulant used	mL	500	500	500	-
Aluminum (Al)	mg/kg	<0.1	<0.1	<0.1	35
Antimony (Sb)	mg/kg	<0.004	<0.004	<0.004	1.4
Chromium (Cr)	mg/kg	<0.1	<0.1	<0.1	7.0
Cobalt (Co)	mg/kg	<0.005	<0.005	<0.005	0.7
Copper (Cu)	mg/kg	<0.5	<0.5	<0.5	28
Iron (Fe)	mg/kg	<5	<5	<5	280
Magnesium (Mg)	mg/kg	<0.5	<0.5	<0.5	-
Manganese (Mn)	mg/kg	<0.1	<0.1	<0.1	12.6
Molybdenum (Mo)	mg/kg	<0.01	<0.01	<0.01	4.2
Nickel (Ni)	mg/kg	<0.02	<0.02	<0.02	4.9
Silver (Ag)	mg/kg	<0.01	<0.01	<0.01	0.56
Tin (Sn)	mg/kg	<5	<5	<5	700
Titanium (Ti)	mg/kg	<0.5	<0.5	<0.5	-
Vanadium (V)	mg/kg	<0.002	<0.002	<0.002	0.35
Zinc (Zn)	mg/kg	<1	<1	<1	35
Arsenic (As)	mg/kg	<0.001	<0.001	<0.001	0.07
Barium (Ba)	mg/kg	<0.1	<0.1	<0.1	8.4
Beryllium (Be)	mg/kg	<0.001	<0.001	<0.001	0.35
Cadmium (Cd)	mg/kg	<0.001	<0.001	<0.001	0.14
Lead (Pb)	mg/kg	<0.002	<0.002	<0.002	0.28
Lithium (Li)	mg/kg	<0.01	<0.01	<0.01	0.336
Mercury (Hg)	mg/kg	<0.0004	<0.0004	<0.0004	0.105
Thallium (Tl)	mg/kg	<0.00005	<0.00005	<0.00005	0.0035
<b>Conclusion</b>	-	-	-	PASS	-



**RESULTS:**

Parameter	Unit	Result	Maximum Specific Release Limit(s) (SRLs) <sup>[a]</sup>
		I004	
		3rd Migrate	
Filling volume	cm <sup>3</sup>	500	-
Volume of stimulant used	mL	500	-
Aluminum (Al)	mg/kg	<0.1	5
Antimony (Sb)	mg/kg	<0.004	0.2
Chromium (Cr)	mg/kg	<0.1	1.0
Cobalt (Co)	mg/kg	<0.005	0.1
Copper (Cu)	mg/kg	<0.5	4
Iron (Fe)	mg/kg	<5	40
Magnesium (Mg)	mg/kg	<0.5	-
Manganese (Mn)	mg/kg	<0.1	1.8
Molybdenum (Mo)	mg/kg	<0.01	0.6
Nickel (Ni)	mg/kg	<0.02	0.7
Silver (Ag)	mg/kg	<0.01	0.08
Tin (Sn)	mg/kg	<5	100
Titanium (Ti)	mg/kg	<0.5	-
Vanadium (V)	mg/kg	<0.002	0.05
Zinc (Zn)	mg/kg	<1	5
Arsenic (As)	mg/kg	<0.001	0.01
Barium (Ba)	mg/kg	<0.1	1.2
Beryllium (Be)	mg/kg	<0.001	0.05
Cadmium (Cd)	mg/kg	<0.001	0.02
Lead (Pb)	mg/kg	<0.002	0.04
Lithium (Li)	mg/kg	<0.01	0.048
Mercury (Hg)	mg/kg	<0.0004	0.015
Thallium (Tl)	mg/kg	<0.00005	0.0005
<b>Conclusion</b>	-	PASS	-



**RESULTS:**

Note: “<” = less than  
 mg/kg = milligram per kilogram

Method: With reference to Metals and Alloys used in Food Contact Materials and articles - A Practical Guide to Manufacturers and Regulators (2013 1st Edition) published by European Directorate for the Quality of Medicines and HealthCare (EDQM), Chapter 3.

Remark: 1) <sup>[a]</sup> denotes as this (these) maximum specific release limit(s) was (were) referenced from Metals and Alloys used in Food Contact Materials and articles - A Practical Guide to Manufacturers and Regulators (2013 1st Edition) published by European Directorate for the Quality of Medicines and HealthCare (EDQM), Chapter 1, Article 4, Tables 1 and 2.

2) Appropriate test condition(s) was (were) selected according to Guidelines on Testing Conditions for Articles in Contact with Foodstuffs (With a Focus on Kitchenware) (2009 1st Edition) published by European Commission Joint Research Center (JRC).

3) Artificial tap water was prepared according to German Standard DIN 10531: 2011-06.

4) <sup>[b]</sup> denotes as the sum of the results of the first and second migrates should not be exceed seven times the SRL

5) Acceptable deviation on maximum specific release limit(s) (SRLs) of certain elements was recommended by the Consumer Health Protection Committee (CD-P-SC) of the Biological Standardisation, Network of Official Medicines Control Laboratories (OMCL) and Healthcare Department (DBO) dated on November 18, 2013 (With Document Number RZ/PH/2013-06790L SBA/mfs). See details in Comment.

Comment :

Acceptable Deviation on Maximum SRLs of Certain Elements expressed in mg/kg :												
Element(s)	Sb	Cr	Co	Mo	Ni	V	As	Be	Cd	Pb	Hg	Tl
Guided SRLs	0.04	0.25 0	0.02	0.12	0.14	0.01	0.00 2	0.01	0.00 5	0.01 0	0.00 3	0.00 01
Recommended SRLs	0.2	1.0	0.1	0.6	0.7	0.05	0.01	0.05	0.02	0.04	0.01 5	0.00 05

**RESULTS:**



END OF REPORT