

**Test Report**

Number: GZHH00491199S1

Applicant: FLASHBAY ELECTRONICS  
BUILDING2, JIXUN INDUSTRIAL PARK, XINJIAO,  
DONG'AO VILLAGE ,SHATIAN TOWN, HUIYANG  
DISTRICT, HUIZHOU CITY, GUANGDONG PROVINCE,  
P.R.CHINA

Date: Jun 16, 2023

*This is to supersede Report No.  
GZHH00491199 dated Jun 14,  
2023*

Sample Description:

Five (5) styles of submitted sample said to be :

Item Name : **Water Bottle**  
Item No. : **Refresh/RH, Fit/FI ,Wave/WV, Pacific/PF, Shaker/SK**  
Country of Origin : **China**  
Date Sample Received : **Apr 28, 2023**  
Testing Period : **Apr 28, 2023 ~ Jun 13, 2023**

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Tests conducted:

As requested by the applicant, refer to attached page(s) for details.

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To be continued



## Test Report

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### Conclusion:

<u>Tested sample</u> Tested component(s) of submitted sample(s)	<u>Standard/Testing Item</u>	<u>Result</u>
	Council Europe Resolution AP (2004) 5 on Silicones Used for Food Contact Applications on Overall Migration	Pass
	European Commission Regulation No. 10/2011 Annex II and Amendment No. 2016/1416 and No. 2017/752 and No. 2020/1245 and Regulation 1935/2004 on specific migration of heavy metal content	Pass
	European Commission Regulation No. 10/2011 Annex I and II and Amendments No. 2020/1245 and Regulation 1935/2004 on specific migration of Primary Aromatic Amines	Pass
	European Commission Regulation No. 10/2011 Annex I and its amendment No. 2020/1245 and Regulation 1935/2004 on specific migration of 2,2,4,4-Tetramethyl-1,3-cyclobutanediol content	Pass
	European Commission Regulation No. 10/2011 and Amendment No. 2016/1416 and No 2017/752 and No. 2020/1245 and Regulation 1935/2004 on overall migration	Pass
	EU Technical Guide Council of Europe Resolution CM/Res(2013)9 on metals and alloys Used in Food Contact Materials and Articles on specific migration of heavy metal	Pass


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### Remarks:

As requested by the applicant, test was conducted only on component(s) listed in this report.

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Authorized by:  
For Intertek Testing Services Shenzhen Ltd.  
Guangzhou Branch, Hardlines

  
Victor T.J. Wang  
Assistant General Manager



## Test Report

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### Tests Conducted

#### 1 Overall Migration Test for Silicones

As per Council Europe Resolution AP (2004) 5 on silicones used for food contact applications, selection of test condition & food simulants by Commission Regulation (EU) No. 10/2011 and its amendments.

Test condition :

<u>Aqueous food simulant:</u>	
<u>Test no.</u>	<u>Time and temperature</u>
OM2	10 days at 40 °C

<u>Tested component</u>	<u>Food simulant</u>	<u>Time(hour)</u>	<u>Temperature(°C)</u>
(7)(8)	3% (w/v) Acetic acid	240	40
	50% (v/v) Ethanol	240	40

<u>Test Item</u>	<u>Result</u>					<u>Units</u>	<u>D.L.</u>	<u>Limit</u>
	<u>7</u>	<u>8</u>	<u>-</u>	<u>-</u>	<u>-</u>			
50% (v/v) Ethanol	ND	ND	-	-	-	mg/dm <sup>2</sup>	1	10
3% (w/v) Acetic acid	ND	ND	-	-	-	mg/dm <sup>2</sup>	1	10

Remarks:

D.L. = Detection Limit

ND = Not detected

Tested Components: See component list in the last section of this report.



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### Tests Conducted

#### 2 Specific Migration of Heavy Metals Content (EU Commission Regulation (EU) No 10/2011)

With reference to Commission Regulation (EU) No. 10/2011 and its amendments

Test condition:

Food simulant : 3% (w/v) Acetic acid

Temperature : 40°C

Time : 24 hours

(1) Black PP plastic (lid of both 750ml bottles).

Element	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (Al)	ND	ND	ND	0.1	1
Antimony (Sb)	ND	ND	ND	0.01	0.04
Arsenic (As)	ND	ND	ND	0.01	ND
Barium (Ba)	ND	ND	ND	0.1	1
Cadmium (Cd)	ND	ND	ND	0.002	ND
Chromium (Cr)	ND	ND	ND	0.01	ND
Cobalt (Co)	ND	ND	ND	0.03	0.05
Copper (Cu)	ND	ND	ND	1	5
Iron (Fe)	ND	ND	ND	5	48
Lead (Pb)	ND	ND	ND	0.01	ND
Lithium (Li)	ND	ND	ND	0.1	0.6
Manganese (Mn)	ND	ND	ND	0.1	0.6
Mercury (Hg)	ND	ND	ND	0.01	ND
Nickel (Ni)	ND	ND	ND	0.01	0.02
Zinc (Zn)	ND	ND	ND	1	5
Europium (Eu)	ND	ND	ND	0.01	0.05
Gadolinium (Gd)	ND	ND	ND	0.01	0.05
Lanthanum (La)	ND	ND	ND	0.01	0.05
Terbium (Tb)	ND	ND	ND	0.01	0.05
Sum of (Eu, Gd, La, Tb)	ND	ND	ND	0.04	0.05



**Test Report**

Number: GZHH00491199S1

Tests Conducted

(2) Semi-transparent white PP plastic (body of 500ml semi-transparent white bottle).

Element	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (Al)	ND	ND	ND	0.1	1
Antimony (Sb)	ND	ND	ND	0.01	0.04
Arsenic (As)	ND	ND	ND	0.01	ND
Barium (Ba)	ND	ND	ND	0.1	1
Cadmium (Cd)	ND	ND	ND	0.002	ND
Chromium (Cr)	ND	ND	ND	0.01	ND
Cobalt (Co)	ND	ND	ND	0.03	0.05
Copper (Cu)	ND	ND	ND	1	5
Iron (Fe)	ND	ND	ND	5	48
Lead (Pb)	ND	ND	ND	0.01	ND
Lithium (Li)	ND	ND	ND	0.1	0.6
Manganese (Mn)	ND	ND	ND	0.1	0.6
Mercury (Hg)	ND	ND	ND	0.01	ND
Nickel (Ni)	ND	ND	ND	0.01	0.02
Zinc (Zn)	ND	ND	ND	1	5
Europium (Eu)	ND	ND	ND	0.01	0.05
Gadolinium (Gd)	ND	ND	ND	0.01	0.05
Lanthanum (La)	ND	ND	ND	0.01	0.05
Terbium (Tb)	ND	ND	ND	0.01	0.05
Sum of (Eu, Gd, La, Tb)	ND	ND	ND	0.04	0.05



**Test Report**

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Tests Conducted

(3) Green PP plastic (lid of 500ml semi-transparent white bottle).

Element	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (Al)	ND	ND	ND	0.1	1
Antimony (Sb)	ND	ND	ND	0.01	0.04
Arsenic (As)	ND	ND	ND	0.01	ND
Barium (Ba)	ND	ND	ND	0.1	1
Cadmium (Cd)	ND	ND	ND	0.002	ND
Chromium (Cr)	ND	ND	ND	0.01	ND
Cobalt (Co)	ND	ND	ND	0.03	0.05
Copper (Cu)	ND	ND	ND	1	5
Iron (Fe)	ND	ND	ND	5	48
Lead (Pb)	ND	ND	ND	0.01	ND
Lithium (Li)	ND	ND	ND	0.1	0.6
Manganese (Mn)	ND	ND	ND	0.1	0.6
Mercury (Hg)	ND	ND	ND	0.01	ND
Nickel (Ni)	ND	ND	ND	0.01	0.02
Zinc (Zn)	ND	ND	ND	1	5
Europium (Eu)	ND	ND	ND	0.01	0.05
Gadolinium (Gd)	ND	ND	ND	0.01	0.05
Lanthanum (La)	ND	ND	ND	0.01	0.05
Terbium (Tb)	ND	ND	ND	0.01	0.05
Sum of (Eu, Gd, La, Tb)	ND	ND	ND	0.04	0.05



**Test Report**

Number: GZHH00491199S1

Tests Conducted

(4) Semi-transparent white PP plastic (straw of 500ml transparent bottle).

Element	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (Al)	ND	ND	ND	0.1	1
Antimony (Sb)	ND	ND	ND	0.01	0.04
Arsenic (As)	ND	ND	ND	0.01	ND
Barium (Ba)	ND	ND	ND	0.1	1
Cadmium (Cd)	ND	ND	ND	0.002	ND
Chromium (Cr)	ND	ND	ND	0.01	ND
Cobalt (Co)	ND	ND	ND	0.03	0.05
Copper (Cu)	ND	ND	ND	1	5
Iron (Fe)	ND	ND	ND	5	48
Lead (Pb)	ND	ND	ND	0.01	ND
Lithium (Li)	ND	ND	ND	0.1	0.6
Manganese (Mn)	ND	ND	ND	0.1	0.6
Mercury (Hg)	ND	ND	ND	0.01	ND
Nickel (Ni)	ND	ND	ND	0.01	0.02
Zinc (Zn)	ND	ND	ND	1	5
Europium (Eu)	ND	ND	ND	0.01	0.05
Gadolinium (Gd)	ND	ND	ND	0.01	0.05
Lanthanum (La)	ND	ND	ND	0.01	0.05
Terbium (Tb)	ND	ND	ND	0.01	0.05
Sum of (Eu, Gd, La, Tb)	ND	ND	ND	0.04	0.05



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Tests Conducted

(5) Transparent tritan plastic (body of 500ml transparent bottle).

Element	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (Al)	ND	ND	ND	0.1	1
Antimony (Sb)	ND	ND	ND	0.01	0.04
Arsenic (As)	ND	ND	ND	0.01	ND
Barium (Ba)	ND	ND	ND	0.1	1
Cadmium (Cd)	ND	ND	ND	0.002	ND
Chromium (Cr)	ND	ND	ND	0.01	ND
Cobalt (Co)	ND	ND	ND	0.03	0.05
Copper (Cu)	ND	ND	ND	1	5
Iron (Fe)	ND	ND	ND	5	48
Lead (Pb)	ND	ND	ND	0.01	ND
Lithium (Li)	ND	ND	ND	0.1	0.6
Manganese (Mn)	ND	ND	ND	0.1	0.6
Mercury (Hg)	ND	ND	ND	0.01	ND
Nickel (Ni)	ND	ND	ND	0.01	0.02
Zinc (Zn)	ND	ND	ND	1	5
Europium (Eu)	ND	ND	ND	0.01	0.05
Gadolinium (Gd)	ND	ND	ND	0.01	0.05
Lanthanum (La)	ND	ND	ND	0.01	0.05
Terbium (Tb)	ND	ND	ND	0.01	0.05
Sum of (Eu, Gd, La, Tb)	ND	ND	ND	0.04	0.05





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Tests Conducted

(6) Semi-transparent tritan plastic (nozzle of 500ml transparent bottle).

Element	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (Al)	ND	ND	ND	0.1	1
Antimony (Sb)	ND	ND	ND	0.01	0.04
Arsenic (As)	ND	ND	ND	0.01	ND
Barium (Ba)	ND	ND	ND	0.1	1
Cadmium (Cd)	ND	ND	ND	0.002	ND
Chromium (Cr)	ND	ND	ND	0.01	ND
Cobalt (Co)	ND	ND	ND	0.03	0.05
Copper (Cu)	ND	ND	ND	1	5
Iron (Fe)	ND	ND	ND	5	48
Lead (Pb)	ND	ND	ND	0.01	ND
Lithium (Li)	ND	ND	ND	0.1	0.6
Manganese (Mn)	ND	ND	ND	0.1	0.6
Mercury (Hg)	ND	ND	ND	0.01	ND
Nickel (Ni)	ND	ND	ND	0.01	0.02
Zinc (Zn)	ND	ND	ND	1	5
Europium (Eu)	ND	ND	ND	0.01	0.05
Gadolinium (Gd)	ND	ND	ND	0.01	0.05
Lanthanum (La)	ND	ND	ND	0.01	0.05
Terbium (Tb)	ND	ND	ND	0.01	0.05
Sum of (Eu, Gd, La, Tb)	ND	ND	ND	0.04	0.05

ND = Not Detected

Compliance: 3<sup>rd</sup> migration result < limit (if limit is ND, 1<sup>st</sup> migration result < limit)  
 3<sup>rd</sup> migration result ≤ 2<sup>nd</sup> migration result ≤ 1<sup>st</sup> migration result

Tested Components: See component list in the last section of this report.



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### Tests Conducted

#### 3 Specific Migration of Primary Aromatic Amines (EU Commission Regulation (EU) No 10/2011)

With reference to Commission Regulation (EU) No. 10/2011 and its amendments and JRC Technical Guidelines EUR 24815 EN 2011.

Test condition:

Tested component	Food simulant	Time(hour)	Temperature(°C)
(1)to(4)(6)	3% (w/v) Acetic acid	24	40

(1) Black PP plastic (lid of both 750ml bottles).

Test Item	Result				Limit mg/kg
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	
4-Aminodiphenyl	ND	ND	ND	0.002	ND
Benzidine	ND	ND	ND	0.002	ND
4-Chloro-o-toluidine	ND	ND	ND	0.002	ND
2-Naphthylamine	ND	ND	ND	0.002	ND
o-Aminoazotoluene	ND	ND	ND	0.002	ND
2-Amino-4-Nitrotoluene	ND	ND	ND	0.002	ND
p-Chloroaniline	ND	ND	ND	0.002	ND
2,4-Diaminoanisole	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	ND	ND	ND	0.002	ND
p-Cresidine	ND	ND	ND	0.002	ND
4,4'-Methylene-bis-(2-chloroaniline)	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	ND	ND	ND	0.002	ND
o-Toluidine	ND	ND	ND	0.002	ND
2,4-Toluylenediamine	ND	ND	ND	0.002	ND
2,4,5-Trimethylaniline	ND	ND	ND	0.002	ND
o-Anisidine	ND	ND	ND	0.002	ND
4-Aminoazobenzene	ND	ND	ND	0.002	ND
m-Phenylenediamine	ND	ND	ND	0.002	ND
Benzoguanamin	ND	ND	ND	0.05	5
4,4-Methylene-bis-3(chloro-2,6-diethylaniline)	ND	ND	ND	0.01	0.05
Total of other primary aromatic amine	ND	ND	ND	0.01	0.01



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Tests Conducted

(2) Semi-transparent white PP plastic (body of 500ml semi-transparent white bottle).

Test Item	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
4-Aminodiphenyl	ND	ND	ND	0.002	ND
Benzidine	ND	ND	ND	0.002	ND
4-Chloro-o-toluidine	ND	ND	ND	0.002	ND
2-Naphthylamine	ND	ND	ND	0.002	ND
o-Aminoazotoluene	ND	ND	ND	0.002	ND
2-Amino-4-Nitrotoluene	ND	ND	ND	0.002	ND
p-Chloroaniline	ND	ND	ND	0.002	ND
2,4-Diaminoanisole	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	ND	ND	ND	0.002	ND
p-Cresidine	ND	ND	ND	0.002	ND
4,4'-Methylene-bis-(2-chloroaniline)	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	ND	ND	ND	0.002	ND
o-Toluidine	ND	ND	ND	0.002	ND
2,4-Toluylenediamine	ND	ND	ND	0.002	ND
2,4,5-Trimethylaniline	ND	ND	ND	0.002	ND
o-Anisidine	ND	ND	ND	0.002	ND
4-Aminoazobenzene	ND	ND	ND	0.002	ND
m-Phenylenediamine	ND	ND	ND	0.002	ND
Benzoguanamin	ND	ND	ND	0.05	5
4,4-Methylene-bis-3(chloro-2,6-diethylaniline)	ND	ND	ND	0.01	0.05
Total of other primary aromatic amine	ND	ND	ND	0.01	0.01



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### Tests Conducted

(3) Green PP plastic (lid of 500ml semi-transparent white bottle).

Test Item	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
4-Aminodiphenyl	ND	ND	ND	0.002	ND
Benzidine	ND	ND	ND	0.002	ND
4-Chloro-o-toluidine	ND	ND	ND	0.002	ND
2-Naphthylamine	ND	ND	ND	0.002	ND
o-Aminoazotoluene	ND	ND	ND	0.002	ND
2-Amino-4-Nitrotoluene	ND	ND	ND	0.002	ND
p-Chloroaniline	ND	ND	ND	0.002	ND
2,4-Diaminoanisole	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	ND	ND	ND	0.002	ND
p-Cresidine	ND	ND	ND	0.002	ND
4,4'-Methylene-bis-(2-chloroaniline)	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	ND	ND	ND	0.002	ND
o-Toluidine	ND	ND	ND	0.002	ND
2,4-Toluylenediamine	ND	ND	ND	0.002	ND
2,4,5-Trimethylaniline	ND	ND	ND	0.002	ND
o-Anisidine	ND	ND	ND	0.002	ND
4-Aminoazobenzene	ND	ND	ND	0.002	ND
m-Phenylenediamine	ND	ND	ND	0.002	ND
Benzoguanamin	ND	ND	ND	0.05	5
4,4-Methylene-bis-3(chloro-2,6-diethylaniline)	ND	ND	ND	0.01	0.05
Total of other primary aromatic amine	ND	ND	ND	0.01	0.01



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Tests Conducted

(4) Semi-transparent white PP plastic (straw of 500ml transparent bottle).

Test Item	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
4-Aminodiphenyl	ND	ND	ND	0.002	ND
Benzidine	ND	ND	ND	0.002	ND
4-Chloro-o-toluidine	ND	ND	ND	0.002	ND
2-Naphthylamine	ND	ND	ND	0.002	ND
o-Aminoazotoluene	ND	ND	ND	0.002	ND
2-Amino-4-Nitrotoluene	ND	ND	ND	0.002	ND
p-Chloroaniline	ND	ND	ND	0.002	ND
2,4-Diaminoanisole	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	ND	ND	ND	0.002	ND
p-Cresidine	ND	ND	ND	0.002	ND
4,4'-Methylene-bis-(2-chloroaniline)	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	ND	ND	ND	0.002	ND
o-Toluidine	ND	ND	ND	0.002	ND
2,4-Toluylenediamine	ND	ND	ND	0.002	ND
2,4,5-Trimethylaniline	ND	ND	ND	0.002	ND
o-Anisidine	ND	ND	ND	0.002	ND
4-Aminoazobenzene	ND	ND	ND	0.002	ND
m-Phenylenediamine	ND	ND	ND	0.002	ND
Benzoguanamin	ND	ND	ND	0.05	5
4,4-Methylene-bis-3(chloro-2,6-diethylaniline)	ND	ND	ND	0.01	0.05
Total of other primary aromatic amine	ND	ND	ND	0.01	0.01



**Test Report**

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Tests Conducted

(6) Semi-transparent tritan plastic (nozzle of 500ml transparent bottle).

Test Item	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
4-Aminodiphenyl	ND	ND	ND	0.002	ND
Benzidine	ND	ND	ND	0.002	ND
4-Chloro-o-toluidine	ND	ND	ND	0.002	ND
2-Naphthylamine	ND	ND	ND	0.002	ND
o-Aminoazotoluene	ND	ND	ND	0.002	ND
2-Amino-4-Nitrotoluene	ND	ND	ND	0.002	ND
p-Chloroaniline	ND	ND	ND	0.002	ND
2,4-Diaminoanisole	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	ND	ND	ND	0.002	ND
p-Cresidine	ND	ND	ND	0.002	ND
4,4'-Methylene-bis-(2-chloroaniline)	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	ND	ND	ND	0.002	ND
o-Toluidine	ND	ND	ND	0.002	ND
2,4-Toluylenediamine	ND	ND	ND	0.002	ND
2,4,5-Trimethylaniline	ND	ND	ND	0.002	ND
o-Anisidine	ND	ND	ND	0.002	ND
4-Aminoazobenzene	ND	ND	ND	0.002	ND
m-Phenylenediamine	ND	ND	ND	0.002	ND
Benzoguanamin	ND	ND	ND	0.05	5
4,4-Methylene-bis-3(chloro-2,6-diethylaniline)	ND	ND	ND	0.01	0.05
Total of other primary aromatic amine	ND	ND	ND	0.01	0.01

ND = Not detected

Other primary aromatic amines are p-Phenylendiamine, Aniline, 2,4-Xylidine, 2,6-Xylidine, 3-Methoxyaniline, 2,6-Toluene-diamine, 1,5-Diaminonaphthalene, 4-Ethoxyaniline, 3-Amino-4-methoxybenzanilide, 3-Amino-4-methylbenzamide, 2-Amino-5-methylbenzoic acid

Compliance: 3<sup>rd</sup> migration result < limit (if limit is ND, 1<sup>st</sup> migration result < limit)  
 3<sup>rd</sup> migration result ≤ 2<sup>nd</sup> migration result ≤ 1<sup>st</sup> migration result

Tested Components: See component list in the last section of this report.



## Test Report

Number: GZHH00491199S1

### Tests Conducted

#### 4 Specific Migration of 2,2,4,4-Tetramethyl-1,3-cyclobutanediol Test

With reference to Commission Regulation (EU) No. 10/2011 and its amendments.

Test condition:

Tested component	Food simulant	Time(hour)	Temperature(°C)
(5)(6)	3% (w/v) Acetic acid	24	40
	50% (v/v) Ethanol	24	40

(5) Transparent tritan plastic (body of 500ml transparent bottle).

Test Item	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
3% (w/v) Acetic acid	ND	ND	ND	1.0	5

(6) Semi-transparent tritan plastic (nozzle of 500ml transparent bottle).

Test Item	Result				
	1 <sup>st</sup> migration mg/kg	2 <sup>nd</sup> migration mg/kg	3 <sup>rd</sup> migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
3% (w/v) Acetic acid	ND	ND	ND	1.0	5

ND = Not Detected

Ratio of food contact surface area to volume of component ( 5 ) used to establish the compliance of material or article = 4.10 dm<sup>2</sup> : 500 mL.

Ratio of food contact surface area to volume of component ( 6 ) used to establish the compliance of material or article = 0.69 dm<sup>2</sup> : 115 mL.

Compliance: 3<sup>rd</sup> migration result < limit (if limit is ND, 1<sup>st</sup> migration result < limit)

3<sup>rd</sup> migration result ≤ 2<sup>nd</sup> migration result ≤ 1<sup>st</sup> migration result

Tested Components: See component list in the last section of this report.



## Test Report

Number: GZHH00491199S1

### Tests Conducted

#### 5 Overall Migration Test (EU Commission Regulation (EU) No 10/2011)

With reference to Commission Regulation (EU) No. 10/2011 and its amendments.

Test condition:

Aqueous food simulant:	
Test no.	Time and temperature
OM2	10 days at 40 °C

Tested component	Food simulant	Time(hour)	Temperature(°C)
(1)to(6)	3% (w/v) Acetic acid	240	40
	50% (v/v) Ethanol	240	40

(1) Black PP plastic (lid of both 750ml bottles).

Food Simulant	Result				
	1 <sup>st</sup> migration mg/dm <sup>2</sup>	2 <sup>nd</sup> migration mg/dm <sup>2</sup>	3 <sup>rd</sup> migration mg/dm <sup>2</sup>	Reporting Limit mg/dm <sup>2</sup>	Limit mg/dm <sup>2</sup>
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10

(2) Semi-transparent white PP plastic (body of 500ml semi-transparent white bottle).

Food Simulant	Result				
	1 <sup>st</sup> migration mg/dm <sup>2</sup>	2 <sup>nd</sup> migration mg/dm <sup>2</sup>	3 <sup>rd</sup> migration mg/dm <sup>2</sup>	Reporting Limit mg/dm <sup>2</sup>	Limit mg/dm <sup>2</sup>
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10

(3) Green PP plastic (lid of 500ml semi-transparent white bottle).

Food Simulant	Result				
	1 <sup>st</sup> migration mg/dm <sup>2</sup>	2 <sup>nd</sup> migration mg/dm <sup>2</sup>	3 <sup>rd</sup> migration mg/dm <sup>2</sup>	Reporting Limit mg/dm <sup>2</sup>	Limit mg/dm <sup>2</sup>
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10





## Test Report

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### Tests Conducted

(4) Semi-transparent white PP plastic (straw of 500ml transparent bottle).

Food Simulant	Result				
	1 <sup>st</sup> migration mg/dm <sup>2</sup>	2 <sup>nd</sup> migration mg/dm <sup>2</sup>	3 <sup>rd</sup> migration mg/dm <sup>2</sup>	Reporting Limit mg/dm <sup>2</sup>	Limit mg/dm <sup>2</sup>
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10

(5) Transparent tritan plastic (body of 500ml transparent bottle).

Food Simulant	Result				
	1 <sup>st</sup> migration mg/dm <sup>2</sup>	2 <sup>nd</sup> migration mg/dm <sup>2</sup>	3 <sup>rd</sup> migration mg/dm <sup>2</sup>	Reporting Limit mg/dm <sup>2</sup>	Limit mg/dm <sup>2</sup>
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10

(6) Semi-transparent tritan plastic (nozzle of 500ml transparent bottle).

Food Simulant	Result				
	1 <sup>st</sup> migration mg/dm <sup>2</sup>	2 <sup>nd</sup> migration mg/dm <sup>2</sup>	3 <sup>rd</sup> migration mg/dm <sup>2</sup>	Reporting Limit mg/dm <sup>2</sup>	Limit mg/dm <sup>2</sup>
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10

ND = Not detected

Ratio of food contact surface area to volume of component ( 1 ) used to establish the compliance of material or article = 0.67 dm<sup>2</sup> : 750 mL.

Ratio of food contact surface area to volume of component ( 2 ) used to establish the compliance of material or article = 3.78 dm<sup>2</sup> : 500 mL.

Ratio of food contact surface area to volume of component ( 3 ) used to establish the compliance of material or article = 0.75 dm<sup>2</sup> : 500 mL.

Ratio of food contact surface area to volume of component ( 4 ) used to establish the compliance of material or article = 0.51 dm<sup>2</sup> : 500 mL.

Ratio of food contact surface area to volume of component ( 5 ) used to establish the compliance of material or article = 4.10 dm<sup>2</sup> : 500 mL.

Ratio of food contact surface area to volume of component ( 6 ) used to establish the compliance of material or article = 1.15 dm<sup>2</sup> : 115 mL.

Compliance: 3<sup>rd</sup> migration result < limit (if limit is ND, 1<sup>st</sup> migration result < limit)  
 3<sup>rd</sup> migration result ≤ 2<sup>nd</sup> migration result ≤ 1<sup>st</sup> migration result

Tested Components: See component list in the last section of this report.



## Test Report

Number: GZHH00491199S1

### Tests Conducted

#### 6 Release Testing on Metals and Alloys Used in Food Contact Materials and Articles

With reference to EU Technical Guide "Council of Europe Resolution CM/Res(2013)9 on metals and alloys Used in Food Contact Materials and Articles". Migration test was carried out and heavy metal content was determined by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and Inductively Coupled Plasma Mass Spectrometer (ICP-MS) .

Test Condition:

Food simulant	Time(hours)	Temperature( °C)
Citric acid (5 g/L)	24	40

(9) Silver color stainless steel (mixing ball of 750ml semi-transparent white bottle).

Test Item	Result 1 <sup>st</sup> test mg/kg	Result 2 <sup>nd</sup> test mg/kg	Result 1 <sup>st</sup> test+Result 2 <sup>nd</sup> test mg/kg	Result 3 <sup>rd</sup> test mg/kg	Reporting Limit mg/kg	7*Limit mg/kg	Limit mg/kg
Silver (Ag)	ND	ND	ND	ND	0.05	0.56	0.08
Aluminium (Al)	ND	ND	ND	ND	0.05	35	5
Chromium (Cr)	0.03	0.03	0.06	ND	0.02	1.75	0.250
Cobalt (Co)	ND	ND	ND	ND	0.01	0.14	0.02
Copper (Cu)	ND	ND	ND	ND	0.5	28	4
Iron (Fe)	ND	ND	ND	ND	1	280	40
Manganese (Mn)	ND	ND	ND	ND	0.02	12.6	1.8
Molybdenum (Mo)	ND	ND	ND	ND	0.02	0.84	0.12
Nickel (Ni)	ND	ND	ND	ND	0.01	0.98	0.14
Tin (Sn)	ND	ND	ND	ND	10	700	100
Vanadium (V)	ND	ND	ND	ND	0.005	0.07	0.01
Zinc (Zn)	ND	ND	ND	ND	1	35	5
Antimony (Sb)	ND	ND	ND	ND	0.01	0.28	0.04
Arsenic (As)	ND	ND	ND	ND	0.001	0.014	0.002
Barium (Ba)	ND	ND	ND	ND	0.1	8.4	1.2
Beryllium (Be)	ND	ND	ND	ND	0.005	0.07	0.01
Cadmium (Cd)	ND	ND	ND	ND	0.001	0.035	0.005
Lead (Pb)	ND	ND	ND	ND	0.005	0.070	0.010
Lithium (Li)	ND	ND	ND	ND	0.010	0.336	0.048
Mercury (Hg)	ND	ND	ND	ND	0.002	0.021	0.003
Thallium (Tl)	ND	ND	ND	ND	0.0001	0.0007	0.0001
Magnesium (Mg)	ND	ND	ND	ND	1	-	-
Titanium (Ti)	ND	ND	ND	ND	1	-	-



## Test Report

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### Tests Conducted

ND = Not detected

The submitted sample is a repeated use article. The migration test was carried out three times on the same article. The sum of the results of the first and second tests should not exceed seven times the limit (Result 1<sup>st</sup> test + Result 2<sup>nd</sup> test < 7 \* limit) and the Result 3<sup>rd</sup> test shouldn't exceed the limit.

Ratio of food contact surface area to volume of component ( 9 ) used to establish the compliance of material or article =  $0.76 \text{ dm}^2$  : 127 mL.

Tested Components: See component list in the last section of this report.

### Component List

No.	Test Component Description(s)
(1)	Black PP plastic (lid of both 750ml bottles).
(2)	Semi-transparent white PP plastic (body of 500ml semi-transparent white bottle).
(3)	Green PP plastic (lid of 500ml semi-transparent white bottle).
(4)	Semi-transparent white PP plastic (straw of 500ml transparent bottle).
(5)	Transparent tritan plastic (body of 500ml transparent bottle).
(6)	Semi-transparent tritan plastic (nozzle of 500ml transparent bottle).
(7)	Semi-transparent light white silicone (big stopper of bullet cover of both 750ml bottles).
(8)	Semi-transparent white silicone (big sealing ring of lid of 750ml bottle, 500ml bottle).
(9)	Silver color stainless steel (mixing ball of 750ml semi-transparent white bottle).

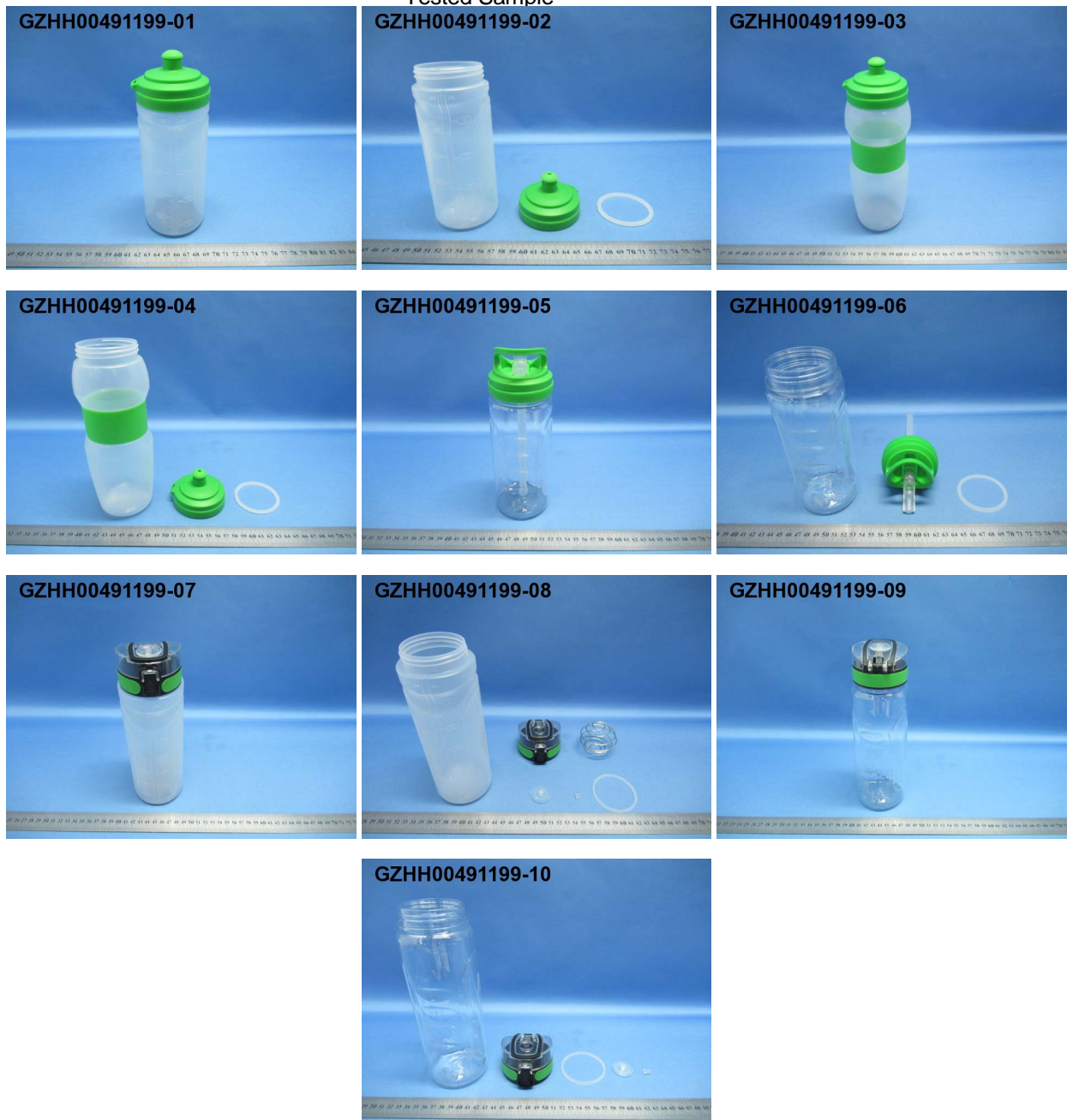


## Test Report

Number: GZHH00491199S1

### Tests Conducted

#### Tested Sample



## Test Report

Number: GZHH00491199S1

### Tests Conducted

Reference photo



Remark: The products in the reference photo are not tested in this report. It's declared by the applicant that they are the same series of products with the particular tested sample, just included in the report for reference.

\*\*\*\*\*

End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band  $w = U$ ) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

The sample(s) and sample information hereto are provided by the client who shall be solely responsible for the authenticity and integrity thereof. The results shown in this report relate only to the sample(s) tested. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. This report shall not be reproduced unless with prior written approval from Intertek Testing Services Shenzhen Limited, Guangzhou Branch. The testing data and result issued by this report are just for scientific research, teaching, internal quality control, product research and development etc. on reference only in the territory of the People's Republic of China.



To: FLASHBAY ELECTRONICS

Ref: FC-230 (0665)

Date: Jun 16, 2023

Re : Report Revision Notification

Intertek Testing Services Report Number GZHH00491199 dated Jun 14, 2023

Please be informed that all the content recorded in the above captioned report will be void. This captioned report is now supersede by a revised Intertek Testing Services Report, GZHH00491199S1

Details of report amendment:

1. Typing error.

Thank you for your attention.

Authorized by:  
For Intertek Testing Services Shenzhen Ltd.  
Guangzhou Branch, Hardlines



Victor T.J. Wang  
Assistant General Manager

