

TEST REPORT

Test Report # 22W-020349 Date of Report Issue: January 13, 2023

Date of Sample Received: December 14, 2022 Pages: Page 1 of 39

CLIENT INFORMATION:

Company: Spector & Co.

Address: testing@spectorandco.com

SAMPLE INFORMATION:

Description: 34 OZ High borosilicate glass bottle

Assortment: BLK /BLU/GRN/RED/WHT

PO No.: PO 31820 & 31821 PO 72456

Item No./Name:DW201Item Class:BIG SHOTFactory/Supplier:USN039Country of Origin:China

Country of Distribution: Canada, United States

Testing Period: 12/19/2022-12/27/2022, 01/10/2023-01/13/2023

OVERALL RESULT:

RC-CSHZ-R063

PASS with information

Please refer to the following pages for test result summary and appropriate notes.

QIMA (HANGZHOU) TESTING CO., LTD.

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Ada Guo

Ada Guo Jeremy Xu

Assist Physical Laboratory Manager Chemical Laboratory Supervisor



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TEST RESULTS SUMMARY:

RC-CSHZ-R063

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	California Proposition 65, Total Lead in Paints and Surface Coatings
PASS	California Proposition 65, Total Lead in Substrate Materials
PASS	Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead and Mercury in Stickers, Films and Surface Coatings
PASS	Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content
PASS	California Proposition 65, Total Cadmium in Paints and Surface Coatings
PASS	California Proposition 65, Total Cadmium in Substrate Materials
Information only	Client's requirement, Total Nickel content
Information only	Client's Requirement, Total Tungsten content
PASS	Client's requirement, Bisphenol A content
PASS	CPSC 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)
PASS	California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)
PASS	Client's Requirement, Phthalates content
PASS	California Proposition 65, Leachable Lead and Cadmium from Food Contact Articles – Interior
PASS	FDA CPG 545.400 & CPG 545.450, Leachable Cadmium and Lead from Ceramics – Interior
PASS	Canadian Glazed Ceramics and Glassware Regulations SOR/2016-175, Leachable Lead and Cadmium from Ceramics and Glassware – Interior
PASS	Massachusetts Regulation 105 CMR 460.000 Lead Poisoning Prevention and Control – Leachable Lead from Ceramics – Interior
PASS	FDA GRAS Specifications, Total Chromium in Stainless Steel Food Containers
PASS	FDA 21 CFR 177.1210, Closures with Sealing Gaskets
PASS	FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Butadiene/Styrene Copolymers
Information only	Client-Performance Requirement-Thermal Shock
Information only	ASTM F2179-20-Glass Candle Containers-Annealing Test
Information only	Client-Performance Requirements-Freezer Test (24 Hours)
Information only	Client-Performance Requirements-Oven Test (over 150°C, within 24 Hours)
Information only	Fabfitfun-Performance Requirements-Effects of Boiling Water
Information only	Client-Performance Requirements-Stain Resistance
Information only	Microwave Safety Test
Information only	Dishwasher Safe Test

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Test(s) marked with $'\phi'$ was subcontracted to external laboratory.



RC-CSHZ-R063

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CONCLUSION	TEST(S) CONDUCTED
Information only	Client-Performance Requirements-Fit for Use Test
Information only	Client-Performance Requirements-Leakage Test



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DETAILED RESULTS:

California Proposition 65, Total Lead in Paints and Surface Coatings

Test Method: CPSC-CH-E1003-09.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	10					Limit
Tost Itom	Result	Result	Result	Result	Result	(mg/kg)
Test Item	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(8/8/
Total Lead (Pb)	ND					90
Conclusion	PASS					

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15mg/kg)

Remark:

RC-CSHZ-R063

The specification is quoted from client's requirement.

Cnosimon No	Transferre	Date of Issue					
Specimen No.	Report No.	Specimen No.	Date of issue				
10	22W-019801	6	December 21, 2022				



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DETAILED RESULTS:

California Proposition 65, Total Lead in Substrate Materials

Test Method: CPSC-CH-E1001-08.3 (Metal), CPSC-CH-E1002-08.3 (Non-Metal)
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2	3	4+5+6	7+8+9	11	Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Lead (Pb)	ND	ND	ND	ND	ND	100
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit =15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

RC-CSHZ-R063

The specification is quoted from client's requirement.



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DETAILED RESULTS:

Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead and Mercury in Stickers, Films and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	10					Total
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Limit (mg/kg)
Total Lead (Pb)	ND					90
Total Mercury (Hg)	ND					10
Conclusion	PASS					

Note:

RC-CSHZ-R063

mg/kg=Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit: Pb=15 mg/kg; Hg = 10 mg/kg)

Cnasiman Na	Transferre	Date of Issue	
Specimen No.	Report No.	Specimen No.	Date of issue
10	22W-019801	6	December 21, 2022



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DETAILED RESULTS:

Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2	3	4+5+6	7+8+9	10	Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Lead (Pb)	ND	ND	ND	ND	ND	90
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	11					Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Lead (Pb)	ND					90
Conclusion	PASS					

Note:

RC-CSHZ-R063

mg/kg=Milligrams per kilogram)

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Chasiman No	Transferre	Date of Issue	
Specimen No.	Report No.	Specimen No.	Date of issue
10	22W-019801	6	December 21, 2022



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DETAILED RESULTS:

California Proposition 65, Total Cadmium in Paints and Surface Coatings

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	10					Limit
Tost Itom	Result	Result	Result	Result	Result	(mg/kg)
Test Item	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(8/8/
Total Cadmium (Cd)	ND					75
Conclusion	PASS					

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Remark:

RC-CSHZ-R063

The specification is quoted from client's requirement.

Cnosimon No	Transferre	Date of Issue					
Specimen No.	Report No.	Specimen No.	Date of issue				
10	22W-019801	6	December 21, 2022				



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DETAILED RESULTS:

California Proposition 65, Total Cadmium in Substrate Materials

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2	3	4+5+6	7+8+9	11	Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Cadmium (Cd)	ND	ND	ND	ND	ND	75
Conclusion	PASS	PASS	PASS	PASS	PASS	

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

RC-CSHZ-R063

The specification is quoted from client's requirement.



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DETAILED RESULTS:

Client's requirement, Total Nickel content

Test Method: US EPA 3052:1996 & US EPA 6010D:2014

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	3					Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Nickel(Ni)	73407					
Conclusion	Information only					

Note:

RC-CSHZ-R063

mg/kg = Milligrams per kilogram

ND = Not detected (report limit = 30 mg/kg)



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DETAILED RESULTS:

Client's Requirement, Total Tungsten content

Test Method: US EPA 3052:1996 & US EPA 6010D:2014

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	3					Limit
Tost Itom	Result	Result	Result	Result	Result	(mg/kg)
Test Item	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(***6/ **6/
Total Tungsten (W)	34					
Conclusion	Information					
Conclusion	only					

Note:

RC-CSHZ-R063

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)



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DETAILED RESULTS:

Client's requirement, Bisphenol A content

Test Method: In-House Method

Analytical Method: Liquid Chromatography-Mass Spectrometer Mass Spectrometer (LC-MS/MS)

Specimen No.		5	6	7	8	Client's
	Result	Result	Result	Result	limit	
Test Item CAS No.		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bisphenol A (BPA)	Disphanal A (DDA) 90 OF 7		ND	ND	ND	Not
Bisphenol A (BPA) 80-05-7		ND	ND	ND	ND	Detected
Conclusi	ion	PASS	PASS	PASS	PASS	

Specimen No.		9	11			Client's
T CACAL	Result	Result	Result	Result	limit	
l'est item	Test Item CAS No.		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bisphenol A (BPA) 80-05-7		ND	ND			Not Detected
Conclusi	ion	PASS	PASS			

Note:

RC-CSHZ-R063

mg/kg=milligram per kilogram
ND=Not Detected(Reporting limit = 1.0mg/kg)



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DETAILED RESULTS:

CPSC 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen N	0.	4+5+6	7+8+9	10	11	Limit
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	ND	1000
Conclusion	1	PASS	PASS	PASS	PASS	

Note:

RC-CSHZ-R063

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Data Consolidation Reference:

Spacimon No	Transferre	ed from	Date of Issue	
specimen No.	pecimen No. Report No.		Date of issue	
10	22W-019801	6	December 21, 2022	

A3



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DETAILED RESULTS:

California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen N	0.	4+5+6	7+8+9	10	11	Limit
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
Conclusion	1	PASS	PASS	PASS	PASS	

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % w/w (Percent by weight)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

RC-CSHZ-R063

The specification is quoted from client's requirement.

Chasiman Na	Transferre	ed from	Data of Issue
Specimen No.	Report No.	Specimen No.	Date of Issue
10	22W-019801	6	December 21, 2022



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DETAILED RESULTS:

RC-CSHZ-R063

Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No).	4+5+6	7+8+9	10	11	Limit
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND	ND	ND	ND	1000
Diethyl phthalate (DEP)	84-66-2	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND	ND	ND	ND	1000
Conclusion		PASS	PASS	PASS	PASS	



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Note:

mg/kg (Milligrams per kilogram) = 0.0001 % w/w (Percent by weight)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

RC-CSHZ-R063

The specification is quoted from client's requirement.

Specimen No	Transferre	ed from	Date of Issue
Specimen No.	Report No.	Specimen No.	Date of issue
10	22W-019801	6	December 21, 2022



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DETAILED RESULTS:

California Proposition 65, Leachable Lead and Cadmium from Food Contact Articles - Interior

Test Method: ASTM C738-94(Reapproved 2020)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1-A	1-B	1-C	1-D	1-E	1-F		
Test Item	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Average (mg/L)	Limit (mg/L)
Volume of acid used (mL)	1050	1050	1050	1050	1050	1050		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	0.100
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.189
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

RC-CSHZ-R063

mL = Millilitres

mg/L (Milligrams per litre) = ppm (Parts per million)

NA = Not applicable

LT = Less than

ND = Not detected (Reporting Limit: Pb = 0.1 mg/L; Cd = 0.02 mg/L)

		Category	Leachable Pb (mg/L)	Leachable Cd (mg/L)
Х	Cups and Mugs	(Any of 6)	0.100	0.189
	Flatware	(Average of 6)	0.226	0.5
	Large Hollowware	(Any of 6)	0.100	0.049
	Small Hollowware	(Any of 6)	0.100	0.189
	Pitchers	(Any of 6)	0.100	0.049



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DETAILED RESULTS:

FDA CPG 545.400 & CPG 545.450, Leachable Cadmium and Lead from Ceramics – Interior

Test Method: ASTM C738-94(Reapproved 2020)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1-A	1-B	1-C	1-D	1-E	1-F		
Test Item	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Average (mg/L)	Limit (mg/L)
Volume of acid used (mL)	1050	1050	1050	1050	1050	1050		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	0.5
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.5
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

RC-CSHZ-R063

mL = Millilitres

mg/L (Milligrams per litre) = ppm (Parts per million)

NA = Not applicable

LT = Less than

ND = Not detected (Reporting Limit: Pb = 0.1 mg/L; Cd = 0.02 mg/L)

		Category	Leachable Pb (mg/L)	Leachable Cd (mg/L)
Х	Cups and Mugs	(Any of 6)	0.5	0.5
	Flatware	(Average of 6)	3.0	0.5
	Large Hollowware	(Any of 6)	1.0	0.25
	Small Hollowware	(Any of 6)	2.0	0.5
	Pitchers	(Any of 6)	0.5	0.25



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DETAILED RESULTS:

Canadian Glazed Ceramics and Glassware Regulations SOR/2016-175, Leachable Lead and Cadmium from Ceramics and Glassware – Interior

Test Method: ISO 6486-1:2019

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1-A	1-B	1-C	1-D	1-E	1-F	
Test Item	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Limit (mg/L)
Volume of acid used (mL)	1050	1050	1050	1050	1050	1050	
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	0.5
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	0.5
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	

Note:

RC-CSHZ-R063

mL = Millilitres

mg/L (Milligrams per litre) = ppm (Parts per million)

LT = Less than

ND = Not detected (Reporting Limit: Pb = 0.2mg/L; Cd = 0.02 mg/L)

		Category	Leachable Pb (mg/L)	Leachable Cd (mg/L)
Х	Cups and Mugs	(Any of 6)	0.5	0.50
	Flatware	(Any of 6)	3.0	0.50
	Large Hollowware	(Any of 6)	1.0	0.25
	Small Hollowware	(Any of 6)	2.0	0.50
	Pitchers	(Any of 6)	0.5	0.25



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DETAILED RESULTS:

Massachusetts Regulation 105 CMR 460.000 Lead Poisoning Prevention and Control – Leachable Lead from Ceramics – Interior

Test Method: ASTM C738-94(Reapproved 2020)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1-A	1-B	1-C	1-D	1-E	1-F		
Test Item	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Average (mg/L)	Limit (mg/L)
Volume of acid used (mL)	1050	1050	1050	1050	1050	1050		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	ND	2
Conclusion							PASS	

Note:

RC-CSHZ-R063

mL = Millilitre

mg/L (Milligrams per litre) = ppm (Parts per million)

NA = Not applicable

LT = Less than

ND = Not detected (Reporting Limit: Pb = 0.2 mg/L)



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DETAILED RESULTS:

FDA GRAS Specifications, Total Chromium in Stainless Steel Food Containers

Test Method: SN/T 2718-2010

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	3					Limit
Test Item	Result (% m/m)	(% m/m)				
Total Chromium (Cr)	18.32					GT 16
Conclusion	PASS					

Note:

% m/m = Percent by mass

GT = Greater than

Remark:

RC-CSHZ-R063

The limit is quoted from ANSI/NSF 51-1997 Section 7.1.2.



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DETAILED RESULTS:

FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specime	11				
Test Item	Test	Condition	Result	RL	Limit
restitem	Temp.	Duration	Result		
Distilled water extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
n-Heptane extractive (mg/kg)	120°F	0.25hours	ND	10	50
8% Ethanol extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
Conclu	Conclusion				

Note:

Temp. = Temperature

°F = Degree Fahrenheit

ppm (Parts per million) = mg/kg (Milligrams per kilogram)

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

RC-CSHZ-R063

The specification is quoted from 21 CFR 177.1210 Table 2 Section 3.



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DETAILED RESULTS:

FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Butadiene/Styrene Copolymers

Test Method: FDA 21 CFR 180.22 and 181.32

Analytical Method: Headspace-Gas Chromatography with Mass Spectrometry

Acrylonitrile Monomers:

Specimen No	5				
Test Simulant	Test Condition		Result	RL	Limit
Test Simulant	Temp.	Duration	Result	KL	Lillill
3% Acetic acid extractive (mg/in²)	120°F 2 hours		ND	0.001	0.003
Conclusion			PASS		

Specimen No	6				
Test Simulant	Test Condition		Result	RL	Limit
Test Simulant	Temp.	Duration	Result	NL.	LITTIL
3% Acetic acid extractive (mg/in²)	120°F 2 hours		ND	0.001	0.003
Conclusion			PASS		

Specimen No	7				
Test Simulant	Test Condition		Result	RL	Limit
rest simulant	Temp.	Duration	Result	NL NL	LITTIL
3% Acetic acid extractive (mg/in²)	120°F 2 hours		ND	0.001	0.003
Conclusion			PASS		

Note:

Temp. = Temperature

°F = Degree Fahrenheit

mg/in² = Milligrams per square inch

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

RC-CSHZ-R063

The specification is quoted from 21 CFR 181.32 (b) (3).

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DETAILED RESULTS:

FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Butadiene/Styrene Copolymers

Test Method: FDA 21 CFR 180.22 and 181.32

Analytical Method: Headspace-Gas Chromatography with Mass Spectrometry

Acrylonitrile Monomers:

Specimen No	8				
Test Simulant	Test Condition		Result	RL	Limit
Test Simulant	Temp.	Duration	Result	NL NL	Limit
3% Acetic acid extractive (mg/in²)	120°F 2 hours		ND	0.001	0.003
Conclusion			PASS		

Specimen No.			9		
Test Simulant	Test Condition		Docult	RL	Limit
Test Simulant	Temp.	Duration	Result	KL	Lillill
3% Acetic acid extractive (mg/in²)	120°F 2 hours		ND	0.001	0.003
Conclusion			PASS		

Note:

Temp. = Temperature

°F = Degree Fahrenheit

mg/in² = Milligrams per square inch

LT = Less than

ND = Not detected. Result value is less than reporting limit (RL).

Remark:

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The specification is quoted from 21 CFR 181.32 (b) (3).

A3



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DETAILED RESULTS:

Client-Performance Requirement-Thermal Shock

Test method: The submitted sample was tested according to the EN 1183: 1997 method A. Test procedure:

- 1) Test method A as specified in the standard was adopted for the test.
- 2) The sample was initially heated in water bath set to 60°C for 5 minutes.
- 3) It was then transferred to cold water at 20°C and immersed for a period of approximately 1 minute.
- 4) The above steps were repeated except that the temperature of the water bath was increased by: 10°C for temperature difference≤ 100°C
- 5) The test completed when failure occurred on all tested specimens or t₁ reaches to 100°C.
- 6) The cumulative failure in % and the standard deviation were determined.
- 7) Number of samples tested: Ten (10) pieces as per client's request.

	Result(s)				
Tested Sample	Temperature of sample $t_1(^{\circ}C)$	Temperature of water bath t_2 (°C)	Temperature difference t_1 - t_2 (°C)	Number of failures at t ₁	Cumulative failure in %
	60	20	40	0	0
	70	20	50	0	0
34 OZ High	80	20	60	2	20
borosilicate glass bottle	90	20	70	0	0
bottle	100	20	80	0	0
	Δt ₅₀ (°C)			-	

Note:

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t1 = Temperature of sample equilibrium to hot water bath.

t2 = Temperature of water in cold water bath.

Failure = There is a slight crack on surface and some samples showed the phenomenon of whole cracking.



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REFERENCE PHOTO:







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DETAILED RESULTS:

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ASTM F2179-20-Glass Candle Containers-Annealing Test

Test	Test Method	Observation	Conclusion
Annealing Test	With a tungsten carbide scribe, scratch once around the inside knuckle of the article. Then scratch an "X" across the entire inside bottom surface of the article. All scratches are to be made using sufficient pressure to just penetrate the surface of the glass.	No abnormal changes are found	Information only



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DETAILED RESULTS:

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Client-Performance Requirements-Freezer Test (24 Hours)

Test	Test Method	Observation	Conclusion
Freezer Test	Put the sample in the -18°C low-temperature environment 24 hours, then remove the sample into 23±2°C humidity 63% room, after 4 hours, check whether the sample broken ,or other appearance changes	No abnormal changes are found	Information only



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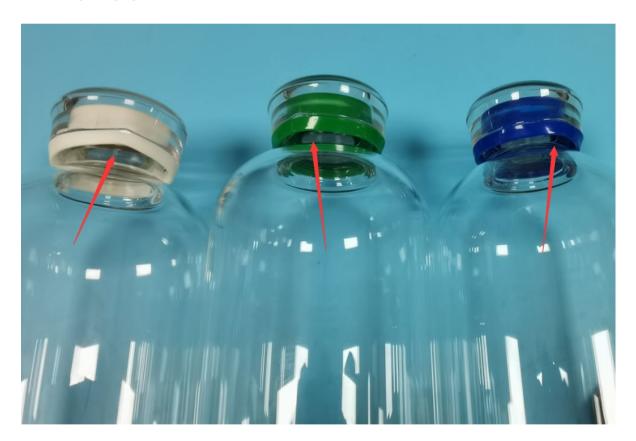
DETAILED RESULTS:

Client-Performance Requirements-Oven Test (over 150°C, within 24 Hours)

For white style, green style, blue style

Test	Test Method	Observation	Conclusion
Heat Resistance	Put the sample in the own 105 °C 8 hours, remove the sample into 23 ± 2 °C humidity 63% room, 4 hours, check whether the sample broken ,or other appearance changes	The bottle cap of sample is deformed	Information only

REFERENCE PHOTO:





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DETAILED RESULTS:

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Fabfitfun-Performance Requirements-Effects of Boiling Water

Test	Test Method	Observation	Conclusion
Effects of Boiling Water	Put the sample into the boiling water, make sure the water level submerges 5 cm of the sample and boil for 30 minutes remove the sample into 23 ± 2 °C humidity 63% room te.4 hours, check whether the sample broken, or other appearance changes	No abnormal changes are found	Information only



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DETAILED RESULTS:

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Client-Performance Requirements-Stain Resistance

Test	Test Method	Observation	Conclusion
Stain Resistance	Put 80% soda, juice, ketchup, soy sauce in the container, shake for 1 minute, make sure the cap is also contaminated with liquid, let stand at room temperature for 2 hours, pour the liquid, manually clean the bottle, you can add dish soap, rinse well, check whether the bottle body and the lid are contaminated	No abnormal changes are found	Information only



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DETAILED RESULTS:

Microwave Safety Test

Test standard: in house method.

Test Procedure:

- 1. Sample is filled with tap water apart from the rim within 10mm.
- 2. Start microwave to continue heating until boiling is achieved.
- 3. Remove the tested sample from microwave oven and allow the sample to equilibrate to the room temperature.
- 4. Visually examine the tested sample. Note any cracks, broken, or other damages.
- 5. Repeat two times for a total of three cycles. Evaluate the tested sample at the end of each cycle.

Specimen No.	Test result(s)	Rating
34 OZ High borosilicate glass bottle	No visible damage or change in color/size was observed on the tested sample.	Information only



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DETAILED RESULTS:

Dishwasher Safe Test

The submitted samples were subjected to the following wash cycles and visual examination by naked eye was made in comparison with the control sample.

Wash condition:

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wash / rinse / dry normal cycle (Duration approximately 60 minutes / temperature over 140°F/60°C).

Number of cycles: Five (5) cycles.

Detergent: Cascade (30 gram).

Dishwasher: SIEMENS-SJ235I01JC.

Number of sample tested: Three (3) piece per style plus three (3) piece as control sample.

Sample Description	Test result(s)	Rating
34 OZ High borosilicate glass bottle of red style	No visible damage or change in color/size was observed on the tested sample.	Information only



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REFERENCE PHOTO:

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Photo before Dishwasher Safe Test



Photo after Dishwasher Safe Test

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Test(s) marked with ϕ' was subcontracted to external laboratory.

(s) and conclusion(s) in this report relate only to the sample(s) as received and method /regulation section(s) tested as described herein. If it is not further specified in the report, the decision rule for stating conformity is based on the <u>QIMA decision rule</u>. This test report may not be reproduced in whole or in part, without written approval of QIMA (Hangzhou) Testing Co., Ltd.



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DETAILED RESULTS:

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Client-Performance Requirements-Fit for Use Test

Test	Test Method	Observation	Conclusion
Tilt resistance	a) placed empty without the lid on a 5° inclined surface in the least favourable position, b) placed with 80% water without the lid on a 5 inclined surface in the least favourable position, c) placed empty with the lid on a 5° inclined surface in the least favourable position, d) placed with 80% water with the lid on a 5° inclined surface in the least favourable position	No abnormal changes are found	Information only



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DETAILED RESULTS:

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Client-Performance Requirements-Leakage Test

Test	Test Method	Observation	Conclusion
Leakage Test	Fill the container with room temperature water to 80 % of capacity. Close the container with the supplied lid/cap as intended. Place it upside down on a white tissue paper for 30 minutes. There shall have no visible leakage on the paper or malfunction/damages. If suitable for hot boiling water (>90 degrees C) such as a vacuum or insulated bottle, repeat the above test with no malfunction, malformation or damages	No abnormal changes are found	Information only



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SPECIMEN DESCRIPTION:

Specimen No.	Specimen Description	Location
1	Transparent glass	Interior (all styles)
2	Transparent glass	Main body (green style)
3	Silvery metal	Lid (green style)
4	Transparent plastic	Lid (green style)
5	Green plastic	Lid (green style)
6	Red plastic	Lid (red style)
7	White plastic	Lid (white style)
8	Blue plastic	Lid (blue style)
9	Black plastic	Lid (black style)
10	Dark grey coating	Bottom lettering (all styles)
11	Translucent soft plastic	Sealing ring (green style)



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SAMPLE PHOTO:







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SAMPLE PHOTO:



-End Report-