

## **TEST REPORT**

23W-009958 Test Report # Date of Report Issue: July 28, 2023

Date of Sample Received: July 12, 2023 Pages: Page 1 of 47

**CLIENT INFORMATION:** 

Polyconcept GBS Company:

Recipient: Kathy Lu

Recipient Email: kathylu@polyconceptgbs.com

SAMPLE INFORMATION:

检验检测专用章

RC-CSHZ-R079

Description: Thor 20oz Stainless Sports Bottle Brix 10oz Cup

> Vida 24oz Stainless Steel Bottle Perth 25oz Stainless Sports Bottle Bluff 12oz Vacuum Tumbler & Cooler

Vasco 32oz Stainless Steel Bottle Kai Glass Bottle 18oz

Vasco Copper Vacuum Insulated Bottle 20oz Brew Copper Vacuum Insulated Mug 12oz Gusto Stainless steel Tumbler w/ SS Straw 23oz Salem Copper Vacuum Insulated Tumbler 18oz Colton Copper Vacuum Insulated Bottle 20oz Highland 3-in-1 Copper Vacuum Bottle Kit 32oz Maia 2-in-1 Copper Vacuum Tumbler Kit 24oz

**Purchase Order Number:** M000034134/ Article No.: SM-6932BK/BL

> SM-6665BK/BL/SL/WH M000034135 M000035330 SM-6937BK/NY/SL SM-6975BK/BL/GY/WH M000034136/ SM-6931BK/WH/SL M000034137/ M000034138 SM-6942BK/BL/WH 1626-44BK M000034144/ 1628-20BK/WH M000034145/ M000034146/ 1628-80BK/NY/WH 1628-95BL/WH M000034147 M000034230 1628-12BK 2030000/2030001 1628-14BK/WH 1600-34BK/WH M000034140/ 1600-35BK/WH M000034142/

> > M000034143

Toy Co./Agency: Factory No.: 12885

Vendor No.: 11538 Country of Origin: China

Country of Distribution: Canada, United States Labeled Age Grade: **Quantity Submitted:** 34 styles Requested Age Grade:

**Testing Period:** 07/18/2023-07/26/2023 Tested Age Grade:

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Test(s) marked with ' $\phi$ ' was subcontracted to external laboratory. Five te resurts) and conclusion(s) in this report relate only to the sample(s) as received and method /regulation section(s) tested as described herein. f it is not further specified in the report, the decision rule for stating conformity is based on the QIMA decision rule

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# **TEST REPORT**

Test Report # 23W-009958 Date of Report Issue: July 28, 2023

Date of Sample Received: July 12, 2023 Pages: Page 2 of 47

**OVERALL RESULT:** 

RC-CSHZ-R079

PASS

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

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QIMA (HANGZHOU) TESTING CO., LTD.

oremy. Xu

Ada Guo

Ada Guo Jeremy Xu

Assist Physical Laboratory Manager Chemical Laboratory Supervisor



## **TEST RESULTS SUMMARY:**

RC-CSHZ-R079

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

CONCLUSION	TEST(S) CONDUCTED
PASS	CPSIA Section 101 & 16 CFR 1303, Total Lead in Paints and Surface Coatings
PASS	California Proposition 65, Total Lead in Paints and Surface Coatings
PASS	California Proposition 65, Total Lead in Substrate Materials
PASS	Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content
PASS	Client's requirement, Bisphenol A content
PASS	Client's Requirement, Phthalates content
PASS	FDA GRAS Specifications, Total Chromium in Stainless Steel Food Containers
PASS	FDA CPG 545.400 & CPG 545.450, Leachable Cadmium and Lead from Ceramics – Interior
PASS	California Proposition 65, Leachable Lead and Cadmium from Food Contact Articles  – Interior
PASS	Canadian Glazed Ceramics and Glassware Regulations SOR/2016-175, Leachable Lead and Cadmium from Ceramics and Glassware – Interior
PASS	Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles – Lip and Rim
PASS	FDA 21 CFR 177.1210, Closures with Sealing Gaskets
PASS	FDA 21 CFR 177.1520, Polyethylene Copolymer
PASS	FDA 21 CFR 177.1520, Polypropylene Copolymers
PASS	FDA 21 CFR 177.2600, Rubber
PASS	FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Styrene Copolymers
PASS	16 CFR 1500.49 As received sharp edge
PASS	19 CFR 134.11- Country of Origin-Labeling Review
PASS	Client Performance Requirement-Thermal Shock



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#### **DETAILED RESULTS:**

#### CPSIA Section 101 & 16 CFR 1303, Total Lead in Paints and Surface Coatings

Test Method: CPSC-CH-E1003-09.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	5+6+7	8+16+17	18+25+33	26+51+52	36+37+38	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.	45+46+47	61+62+65	71			Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Lead (Pb)	37	ND	ND			90
Conclusion	PASS	PASS	PASS			

Note:

mg/kg =Milligrams per kilogram

LT = Less than

RC-CSHZ-R079

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

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

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



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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.	5+6+7	8+16+17	18+25+33	26+51+52	36+37+38	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.	45+46+47	61+62+65	71			Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Lead (Pb)	37	ND	ND			90
Conclusion	PASS	PASS	PASS			

#### Note:

mg/kg =Milligrams per kilogram

LT = Less than

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

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

#### Remark:

RC-CSHZ-R079

The specification is quoted from client's requirement.





#### **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.	1	2	3+34	9+10	11+12+81	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	

Specimen No.	13	19+20+21	22	23	29+30+31	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	

Specimen No.	42	43+73+80	56	69+70	72	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	

Specimen No.	74	75+76				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				100
Conclusion	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-R079

The specification is quoted from client's requirement.

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





#### **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.	1	2	3+34	5+6+7	8+16+17	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.	18+25+33	26+51+52	36+37+38	45+46+47	56	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	37	ND	90
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	61+62+65	68+70	71			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			90
Conclusion	PASS	PASS	PASS			

#### Note:

RC-CSHZ-R079

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.





#### **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	3	13	31	34	Client's	
Test Item	CACAL	Result	Result	Result	Result	limit
	CAS No.	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bisphenol A (BPA)	80-05-7	ND	ND	ND	ND	Not Detected
Conclusion		PASS	PASS	PASS	PASS	

Specimen No.		43	56	69	70	Client's
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	limit (mg/kg)
Bisphenol A (BPA)	80-05-7	ND	ND	ND	ND	Not Detected
Conclus	ion	PASS	PASS	PASS	PASS	

Specimer	73	75	80		Client's	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	limit (mg/kg)
Bisphenol A (BPA) 80-05-7		ND	ND	ND		Not Detected
Conclus	PASS	PASS	PASS			

Note:

RC-CSHZ-R079

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

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#### **DETAILED RESULTS:**

## Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen N	0.	3+22+34	5+6+7	8+16+17	9+10+56	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-octyl phthalate (DnOP)	117-84-0	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)	hthalate 84-69-5		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-R079

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.



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#### **DETAILED RESULTS:**

## Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen N	Specimen No.	11+12+81	13	18+25+33	19+20+21	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-octyl phthalate (DnOP)	117-84-0	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-R079

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.

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



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#### **DETAILED RESULTS:**

## Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen N	Specimen No.	26+51+52	29+30+31	36+37+38	42	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-octyl phthalate (DnOP)	117-84-0	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-R079

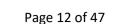
mg/kg = Milligrams per kilogram

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.

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





#### **DETAILED RESULTS:**

## Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen N	0.	43+73+80	45+46+47	61+62+65	69+70	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-octyl phthalate (DnOP)	117-84-0	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-R079

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.

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



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#### **DETAILED RESULTS:**

## Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen N	0.	71	74	75+76		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		1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND		1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND		1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND		1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND		1000
Di-n-octyl phthalate (DnOP)	117-84-0	ND	ND	ND		1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND		1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND		1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND		1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND		1000
Conclusion	1	PASS	PASS	PASS		

Note:

RC-CSHZ-R079

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.

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



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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.	1	2				Limit	
Test Item	Result (% m/m)	(% m/m)					
Total Chromium (Cr)	16.26	16.26				GT 16	
Conclusion	PASS	PASS					

Note:

% m/m = Percent by mass GT = Greater than

Remark:

RC-CSHZ-R079

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





#### **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.	82-A	82-B	82-C	82-D	82-E	82-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)	600	600	600	600	600	600		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	2.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.5
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

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

NA = Not applicable

LT = Less than

RC-CSHZ-R079

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

		Category	Leachable Pb (mg/L)	Leachable Cd (mg/L)
	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
Х	Small Hollowware	(Any of 6)	2.0	0.5
	Pitchers	(Any of 6)	0.5	0.25





#### **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.	82-A	82-B	82-C	82-D	82-E	82-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)	600	600	600	600	600	600		
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:

mL = Millilitres

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

NA = Not applicable

LT = Less than

RC-CSHZ-R079

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

		Category	Leachable Pb (mg/L)	Leachable Cd (mg/L)
	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
Х	Small Hollowware	(Any of 6)	0.100	0.189
	Pitchers	(Any of 6)	0.100	0.049





#### **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.	82-A	82-B	82-C	82-D	82-E	82-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)	600	600	600	600	600	600	
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	2.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	0.50
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	

Note:

mL = Millilitres

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

LT = Less than

RC-CSHZ-R079

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

		Category	Leachable Pb (mg/L)	Leachable Cd (mg/L)
	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
Х	Small Hollowware	(Any of 6)	2.0	0.50
	Pitchers	(Any of 6)	0.5	0.25



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#### **DETAILED RESULTS:**

## Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles - Lip and Rim

Test Method: ASTM C927-80(Reapproved 2019)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	39-A	39-B	39-C	39-D	39-E	39-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Specimen No.	40-A	40-B	40-C	40-D	40-E	40-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

NA = Not applicable

LT = Less than

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

Remark:

RC-CSHZ-R079



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#### **DETAILED RESULTS:**

## Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles - Lip and Rim

Test Method: ASTM C927-80(Reapproved 2019)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	41-A	41-B	41-C	41-D	41-E	41-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Specimen No.	48-A	48-B	48-C	48-D	48-E	48-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

NA = Not applicable

LT = Less than

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

Remark:

RC-CSHZ-R079



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#### **DETAILED RESULTS:**

## Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles - Lip and Rim

Test Method: ASTM C927-80(Reapproved 2019)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	49-A	49-B	49-C	49-D	49-E	49-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Specimen No.	50-A	50-B	50-C	50-D	50-E	50-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

NA = Not applicable

LT = Less than

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

Remark:

RC-CSHZ-R079



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#### **DETAILED RESULTS:**

## Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles - Lip and Rim

Test Method: ASTM C927-80(Reapproved 2019)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	53-A	53-B	53-C	53-D	53-E	53-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Specimen No.	54-A	54-B	54-C	54-D	54-E	54-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

NA = Not applicable

LT = Less than

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

Remark:

RC-CSHZ-R079



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#### **DETAILED RESULTS:**

## Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles - Lip and Rim

Test Method: ASTM C927-80(Reapproved 2019)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	57-A	57-B	57-C	57-D	57-E	57-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Specimen No.	58-A	58-B	58-C	58-D	58-E	58-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

NA = Not applicable

LT = Less than

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

Remark:

RC-CSHZ-R079



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#### **DETAILED RESULTS:**

## Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles - Lip and Rim

Test Method: ASTM C927-80(Reapproved 2019)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	63-A	63-B	63-C	63-D	63-E	63-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Specimen No.	64-A	64-B	64-C	64-D	64-E	64-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

NA = Not applicable

LT = Less than

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

Remark:

RC-CSHZ-R079



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#### **DETAILED RESULTS:**

## Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles - Lip and Rim

Test Method: ASTM C927-80(Reapproved 2019)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	66-A	66-B	66-C	66-D	66-E	66-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Specimen No.	67-A	67-B	67-C	67-D	67-E	67-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)	300	300	300	300	300	300		
Leachable Lead (Pb)	ND	ND	ND	ND	ND	ND	NA	4.0
Leachable Cadmium (Cd)	ND	ND	ND	ND	ND	ND	NA	0.4
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	NA	

Note:

mL = Millilitres

NA = Not applicable

LT = Less than

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

Remark:

RC-CSHZ-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimo	Specimen No.				
Test Item	Test Condition		Result	RL	Limit
	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				

Specim	Specimen No.				
Tost Itom	Test	Test Condition		RL	Limit
Test Item	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	PASS				

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimo	Specimen No.				
Test Item	Test Condition		Result	RL	Limit
	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				

Specimo	Specimen No.				
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	PASS				

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specim	Specimen No.				
Test Item	Test Condition		Result	RL	Limit
	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				

Specim	Specimen No.				
Tost Itom	Test	Test Condition		RL	Limit
Test Item	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	PASS				

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specim	Specimen No.				
Test Item	Test Condition		Result	RL	Limit
	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				

Specimen No.			35		
Test Item	Test	Condition	RL	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	usion		PASS		

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			44		
Test Item	Test	: Condition	Result	RL	Limit
restitem	Temp.	Duration	Result	10	
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	usion		PASS		

Specimen No.			55		
Test Item	Test	Condition	Danilla	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	usion		PASS		

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			59		
To at the co	Test	Test Condition		RL	Limit
Test Item	Temp.	Duration	Result	10	
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
Conclusion			PASS		

Specimen No.			60		
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	usion		PASS		

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			68		
Test Item	Test	Condition	Result RL I	RL	Limit
restitem	Temp.	Duration		10	
Distilled water extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
n-Heptane extractive (mg/kg)	120°F	0.25hours	13.4	10	50
8% Ethanol extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
Conclu	usion		PASS		

Specimen No.			75		
Test Item	Test	Test Condition		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	usion		PASS		

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			77		
Test Item	Test	Condition	Result	RL	Limit
restiteili	Temp.	Duration		10	
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	usion		PASS		

Specimen No.			78		
Test Item	Test	: Condition	Result	RL	Limit
restitem	Temp.	Duration	Result	10	
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	usion		PASS		

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			79		
Test Item	Test	Condition	Result RL Lii	RL	Limit
restitem	Temp.	Duration		10	
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	usion		PASS		

Specimen No.			83		
Test Item	Test	: Condition	Posul+	RL	Limit
restitein	Temp.	Duration	Result	10	
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	usion		PASS		

#### 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-R079





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			84		
Test Item	Test	Condition	Result RL	RL	Limit
restiteili	Temp.	Duration		10	
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				

Specimen No.			85		
Test Item	Test Condition		Daniele	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
Conclusion			PASS		

#### 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-R079



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#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimen No.			86		
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	PASS				

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-R079



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#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1520, Polyethylene Copolymer

Test Method: FDA 21 CFR 177.1520

Speci	men No.		80			
Test Item	Temp.	Duration	Result	Result	RL	Limit
Density (g/cc)	NA	NA	0.902		NA	0.85-1.00
n-Hexane Extractive (%)	50°C	2 Hours	ND		0.4	5.5
Xylene Extractive (%)	Reflux	2 Hours or Until Total Dissolved	3		1.0	30
Conclusion			PASS			

#### Note:

Temp. = Temperature

°C = Degree Celsius

g/cc = Grams per cubic centimeter

% = Percent by weight

NA = Not applicable

LT = Less than

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

#### Remark:

RC-CSHZ-R079

The specification is quoted from 21 CFR 177.1520 (c) 3.1a.





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.1520, Polypropylene Copolymers

Test Method: FDA 21 CFR 177.1520

Specimen No.			3			
Tost Itom	Test Condition		Docult	RL	Limit	
Test Item	Temp.	Duration	Result			
Density (g/cc)	NA	NA	0.903	NA	0.85 – 1.00	
n-Hexane extractive (% w/w)	50°C	2 hours	0.5	0.4	5.5	
Xylene extractive (% w/w)	Reflux	2 hours or total dissolved	1	1	30	
Conclu	PASS					

Specime	73				
Test Item	Test Condition		D II	RL	Limit
restitem	Temp.	Duration	Result		
Density (g/cc)	NA	NA	0.901	NA	0.85 – 1.00
n-Hexane extractive (% w/w)	50°C	2 hours	ND	0.4	5.5
Xylene extractive (% w/w)	Reflux	2 hours or total dissolved	3	1	30
Conclu	PASS				

### Note:

Temp. = Temperature

°C = Degree Celsius

g/cc = Grams per cubic centimeter

% w/w = Percent by weight

NA = Not applicable

LT = Less than

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

#### Remark:

RC-CSHZ-R079

The specification is quoted from 21 CFR 177.1520 (c) 3.1a.





#### **DETAILED RESULTS:**

## FDA 21 CFR 177.2600, Rubber

Test Method: FDA 21 CFR 177.2600

Specimen No.			56		
Test Item	Test Co	ndition	Result	RL	Limit
rest item	Temp.	Duration	Result		
Distilled water extractive (mg/in²)	Reflux	First	ND	2	20
Distilled water extractive (mg/m/)	Reliux	7 hours	ND	2	20
Distilled water extractive (mg/in²)	Reflux	Succeeding	0.3	0.1	1
Distilled water extractive (mg/in²)		2 hours		0.1	1
n-Hexane extractive (mg/in²)	Dfl	First	ND	15	175
II-Hexalle extractive (Ilig/III )	Reflux	7 hours		15	1/5
n-Hexane extractive (mg/in²)	Reflux	Succeeding	0.0	0.4	4
	Rellux	2 hours	0.9	0.4	4
Conclusion	PASS				

Specimen No.			69		
Test Item	Test Co	ondition	Result	RL	Limit
rest item	Temp.	Duration	Result		
Distilled water extractive (mg/in²)	Reflux	First 7 hours	ND	2	20
Distilled water extractive (mg/in²)	Reflux	Succeeding 2 hours	0.2	0.1	1
n-Hexane extractive (mg/in²)	Reflux	First 7 hours	29.8	15	175
n-Hexane extractive (mg/in²)	Reflux	Succeeding 2 hours	3.1	0.4	4
Conclusion			PASS		

#### Note:

Temp. = Temperature

mg/in<sup>2</sup> = Milligrams per square inch

LT = Less than

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

### Remark:

RC-CSHZ-R079

The specification is quoted from 21 CFR 177.2600 (e) and 177.2600 (f).

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#### **DETAILED RESULTS:**

## FDA 21 CFR 177.2600, Rubber

Test Method: FDA 21 CFR 177.2600

Specimen No.			70		
Test Item	Test Co	ndition	Result	RL	Limit
rest item	Temp.	Duration	Result		
Distilled water extractive (mg/in²)	Reflux	First	ND	2	20
Distilled water extractive (Hig/III )	Reliux	7 hours	ND	2	20
Distilled water extra stine (res./in2)	Reflux	Succeeding	0.3	0.1	1
Distilled water extractive (mg/in²)		2 hours		0.1	1
n Hoyana oytrastiya (mg/in²)	Reflux	First	30.2	15	175
n-Hexane extractive (mg/in²)	Reliux	7 hours		15	1/5
n-Hexane extractive (mg/in²)	Reflux	Succeeding	2.0	0.4	4
	Rellux	2 hours	3.0	0.4	4
Conclusion			PASS		

#### Note:

Temp. = Temperature

mg/in<sup>2</sup> = Milligrams per square inch

LT = Less than

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

### Remark:

RC-CSHZ-R079

The specification is quoted from 21 CFR 177.2600 (e) and 177.2600 (f).



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#### **DETAILED RESULTS:**

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

Test Method: FDA 21 CFR 180.22 and 181.32

Analytical Method: Headspace-Gas Chromatography with Mass Spectrometry

#### Acrylonitrile Monomers:

Specimen No.			34		
Test Simulant	Test Co	ndition	Result	RL	Limit
rest 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.			43		
Tost Simulant	Test Condition		Docult	DI	Limit
Test Simulant	Temp.	Duration	Result	RL	Limit
3% Acetic acid extractive (mg/in²)	120°F	2 hours	ND	0.001	0.003
Conclusion			PASS		

#### Note:

Temp. = Temperature

°F = Degree Fahrenheit

mg/in<sup>2</sup> = Milligrams per square inch

LT = Less than

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

## Remark:

RC-CSHZ-R079

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



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#### **DETAILED RESULTS:**

RC-CSHZ-R079

## 16 CFR 1500.49 As received sharp edge

Test	Observation	Conclusion
Sharp Edges	No Sharp edge.	PASS

Remark: Only test rigid straws as per client's request.

## 19 CFR 134.11- Country of Origin-Labeling Review

Test	Observation	Conclusion
Country of Origin	Present on product and can be read easily by consumer at the point of sale.	PASS

## **Client-Performance Requirement-Thermal Shock**

Test	Test Method	Observation	Conclusion
Thermal Shock	Product shall not crack or shatter after being subjected to extreme temperature change: Ceramic mugs & dinnerware: 212°F to 68°F	Cracking, broken wasn't happened when test from high temperature to low temperature test conditions.	PASS

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## **SPECIMEN DESCRIPTION:**

检验检测专用章

RC-CSHZ-R079

Specimen No.	Specimen Description	Location
1	Silvery metal	Main body (SM-6975BK/BL/GY/WH)/lid outer (SM-6937BK/NY/SL)/interior/handle (1628-20BK/WH)/lid/interior (1628-12BK/1628-14BK/WH)/interior/exterior (1628-80BK/NY/WH)/lid/interior/straw (1600-35BK/WH)/lid (SM-6932BK/BL)/interior (SM-6931BK/WH/SL)/main body/straw (1628-95BL/WH)/interior (1600-34BK/WH)
2	Silvery metal	Lid outer (SM-6975BK/BL/GY/WH/SM-6942BK/BL/WH)/main body (SM-6942BK/BL/WH)/exterior/lid handle (SM-6937BK/NY/SL/1628-14BK/WH)/exterior (1628-20BK/WH/1628-12BK/SM-6665BK/BL/SL/WH/1600-35BK/WH/SM-6931BK/WH/SL)/handle (1628-80BK/NY/WH)/main body/handle (SM-6932BK/BL)/metal lid/exterior (1600-34BK/WH)/small lid (1628-20BK/WH)
3	Black plastic	Lid (SM-6975BK/BL/GY/WH/SM-6937BK/NY/SL/1600-35WH/BK/SM-6932BK/BL)/main lid/small lid (SM-6942BK/BL/WH)/main lid/small lid/hinge (1628-20BK/WH)/lid/flip lid (1628-12BK)/interior (SM-6665BK/BL/SL/WH)/flap lid (SM-6931BK/WH/SL)/all lids (1600-34BK/WH)/replace lid (/1600-35BK/WH)
4	Translucent soft plastic	Sealing ring (SM-6975BK/BL/GY/WH)
5	Black coating	Main body (SM-6975BK)
6	Blue coating	Main body (SM-6975BL)
7	Grey coating	Main body (SM-6975GY)
8	White coating	Main body (SM-6975WH)
9	Black soft plastic	Handle (SM-6975BK)
10	Blue soft plastic	Handle (SM-6975BL)
11	Grey soft plastic	Handle (SM-6975GY)

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## **SPECIMEN DESCRIPTION:**

检验检测专用章

RC-CSHZ-R079

Specimen No.	Specimen Description	Location
12	White soft plastic	Handle (SM-6975WH)
13	Translucent soft plastic	Sealing ring (SM-6975BK/BL/GY/WH/SM-6937BK/NY/SL/1628-12BK/SM-6665BK/BL/SL/WH/1628-80BK/NY/WH/SM-6932BK/BL/SM-6931BK/WH/SL/1628-14BK/WH)/big/small sealing ring (SM-6942BK/BL/WH/1628-20BK/WH)
14	Translucent soft plastic	Big sealing ring (SM-6942BK/BL/WH)
15	Translucent soft plastic	Small sealing ring (SM-6942BK/BL/WH)
16	Black coating	Main body (SM-6942BK)
17	Blue coating	Main body (SM-6942BL)
18	White coating	Main body (SM-6942WH)
19	Black soft plastic	Lid band (SM-6942BK)
20	Blue soft plastic	Lid band (SM-6942BL)
21	White soft plastic	Lid band (SM-6942WH)
22	Black plastic	Handle/move piece (SM-6942BK/BL/WH)
23	Silvery metal	Handle axis (SM-6942BK/BL/WH)
24	Translucent soft plastic	Sealing ring (SM-6937BK/NY/SL)
25	Black coating	Main body (SM-6937BK)
26	Navy coating	Main body (SM-6937NY)
27	Translucent soft plastic	Big sealing ring (1628-20BK/WH)
28	Translucent soft plastic	Small sealing ring (1628-20BK/WH)
29	Grey soft plastic	Lid band (1628-20BK)
30	White soft plastic	Lid band (1628-20WH)
31	Black soft plastic	Stopper (1628-12BK/SM-6931BK/WH/SL)/lid middle (1600-35WH/BK)/main lid/replace lid stopper (1600-34BK/WH)/replace lid stopper (1600-35BK/WH)
32	Translucent soft plastic	Sealing ring (1628-12BK)

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## **SPECIMEN DESCRIPTION:**

检验检测专用章

RC-CSHZ-R079

Specimen No.	Specimen Description	Location
33	Black coating	Main body (1628-12BK/SM-6931BK)
34	Transparent grey plastic	Lid (SM-6665BK/BL/SL/WH)
35	Translucent soft plastic	Sealing ring (SM-6665BK/BL/SL/WH)
36	Black coating	Main body (SM-6665BK)
37	Blue coating	Main body (SM-6666BL)
38	White coating	Main body (SM-6667WH)
39	Black coated silvery metal	Lip (SM-6665BK)
40	Blue coated silvery metal	Lip (SM-6665BL)
41	White coated silvery metal	Lip (SM-6665WH)
42	Black foam with glue	Base pad (SM-6665BK/BL/SL/WH)
43	Transparent plastic	Lid (1628-80BK/NY/WH/SM- 6931BK/WH/SL)
44	Translucent soft plastic	Sealing ring (1628-80BK/NY/WH)
45	Black coating	Main body (1628-80BK)
46	Navy coating	Main body (1628-80NY)
47	White coating	Main body (1628-80WH)
48	Black coated silvery metal	Lip (1628-80BK)
49	Navy coated silvery metal	Lip (1628-80NY)
50	White coated silvery metal	Lip (1628-80WH)
51	Black coating	Main body (1628-20BK/1600-35BK/1628- 14BK/1600-34BK)
52	White coating	Main body (1628-20WH/1600- 35WH/1628-14WH/1600-34WH)
53	Black coated silvery metal	Lip (1600-35BK)
54	White coated silvery metal	Lip (1600-35WH)
55	Black soft plastic	Sealing ring (1600-35WH/BK)
56	Black soft plastic	Sealing ring/straw tip (1600-35WH/BK)/all sealing rings (1600-34WH/BK)
57	Black coated silvery metal	Lip (1628-14BK)
58	White coated silvery metal	Lip (1628-14WH)

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## **SPECIMEN DESCRIPTION:**

检验检测专用章

RC-CSHZ-R079

Specimen No.	Specimen Description	Location
59	Translucent soft plastic	Sealing ring (1628-14BK/WH)
60	Translucent soft plastic	Sealing ring (SM-6932BK/BL)
61	Black coating	Main body (SM-6932BK)
62	Blue coating	Main body (SM-6932BL)
63	Black coated silvery metal	Lip (SM-6932BK)
64	Blue coated silvery metal	Lip (SM-6932BL)
65	White coating	Main body (SM-6931WH/1628-95WH)
66	Black coated silvery metal	Lip (SM-6931BK)
67	White coated silvery metal	Lip (SM-6931WH)
68	Translucent soft plastic	Sealing ring (SM-6931BK/WH/SL)
69	Blue soft plastic	Lid/straw tip (1628-95BL)
70	White soft plastic	Lid/straw tip (1628-95WH)
71	Blue coating	Main body (1628-95BL)
72	Transparent glass	Main body (1626-44BK)
73	Grey plastic	Inner lid (1626-44BK)
74	Natural bamboo with transparent lacquer	Outer lid (1626-44BK)
75	Grey soft plastic	Sealing ring (1626-44BK)
76	Black soft plastic	Case (1626-44BK)
77	Black soft plastic	Main lid sealing ring (1600-34BK/WH)
78	Black soft plastic	Metal lid sealing ring (1600-34BK/WH)
79	Black soft plastic	Replace lid sealing ring (1600-34BK/WH)
80	Translucent plastic	Straw (1600-34BK/WH)
81	Black soft plastic	Metal lid handle loop (1600-34BK/WH)
82	Transparent glass	Interior (1626-44BK)
83	Black soft plastic	Stopper (1628-12BK/SM-6931BK/WH/SL)
84	Black soft plastic	Lid middle (1600-35WH/BK)
85	Black soft plastic	Main lid/replace lid stopper (1600- 34BK/WH)
86	Black soft plastic	Replace lid stopper (1600-35BK/WH)

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#### **SAMPLE PHOTO:**

检验检测专用章

RC-CSHZ-R079





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#### **SAMPLE PHOTO:**

检验检测专用章

RC-CSHZ-R079



-End Report-