

TEST REPORT

Test Report # 22W-020292(A1) Date of Report Issue: December 21, 2022

Date of Sample Received: December 13, 2022 Pages: Page 1 of 23

CLIENT INFORMATION:

Company: Spector & Co.

Address: testing@spectorandco.com

SAMPLE INFORMATION:

Description: 18 OZ Double wall vacuum insulated stainless steel tumbler

Assortment: BLK /WHT/BLU/GRN/RED/ORG/PPL/YEL

PO No.: PO 31820 & 31821 PO 72451

Item No./Name: DW418

Item Class:GO GETTERFactory/Supplier:USN039Country of Origin:China

Country of Distribution: Canada, United States
Testing Period: 12/14/2022-12/21/2022

OVERALL RESULT:

PASS with information

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

QIMA (HANGZHOU) TESTING CO., LTD.

Loremy. Xu

Jeremy Xu

RC-CSHZ-R063

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 Paints 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	FDA GRAS Specifications, Total Chromium in Stainless Steel Food Containers
PASS	FDA 21 CFR 177.1210, Closures with Sealing Gaskets
PASS	FDA 21 CFR 177.2600, Rubber
PASS	FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Styrene Copolymers

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Test Report # 22W-020292(A1) Pages: Page 3 of 23

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.	6+8+9	10+11+12	13+14			Limit
Test Item	Result	Result	Result	Result	Result	(mg/kg)
rest item	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(8/8/
Total Lead (Pb)	ND	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-R063



Test Report # 22W-020292(A1) Pages: Page 4 of 23

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	3+7	4	5		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		100
Conclusion	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



Test Report # 22W-020292(A1) Pages: Page 5 of 23

DETAILED RESULTS:

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

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	6+8+9	10+11+12	13+14			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	ND	ND			90
Total Mercury (Hg)	ND	ND	ND			10
Conclusion	PASS	PASS	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)



Test Report # 22W-020292(A1) Pages: Page 6 of 23

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	3+7	4	5	6+8+9	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.	10+11+12	13+14				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				90
Conclusion	PASS	PASS				

Note:

RC-CSHZ-R063

mg/kg=Milligrams per kilogram)

LT = Less than

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



Test Report # 22W-020292(A1) Pages: Page 7 of 23

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.	6+8+9	10+11+12	13+14			Limit
Test Item	Result	Result	Result	Result	Result	(mg/kg)
rest item	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(8/8/
Total Cadmium (Cd)	ND	ND	ND			75
Conclusion	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



Test Report # 22W-020292(A1) Pages: Page 8 of 23

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.	1	3+7	4	5		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		75
Conclusion	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



Test Report # 22W-020292(A1) Pages: Page 9 of 23

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.	4+5					Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Nickel(Ni)	68272					
Conclusion	Information only					

Note:

RC-CSHZ-R063

mg/kg = Milligrams per kilogram

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



Test Report # 22W-020292(A1) Pages: Page 10 of 23

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.	4+5					Limit
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	(mg/kg)
Total Tungsten (W)	ND					
Conclusion	Information only					

Note:

RC-CSHZ-R063

mg/kg = Milligrams per kilogram

LT = Less than

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



Test Report # 22W-020292(A1) Pages: Page 11 of 23

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.		1	3			Client's
Tost Itom	CAS No	Result	Result	Result	Result	limit
rest 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)



Test Report # 22W-020292(A1) Pages: Page 12 of 23

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.	1	3+7	6+8+9	10+11+12	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)



Test Report # 22W-020292(A1) Pages: Page 13 of 23

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.	13+14				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				1000
Benzyl butyl phthalate (BBP)	85-68-7	ND				1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND				1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND				1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND				1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND				1000
Diisobutyl phthalate (DIBP)	84-69-5	ND				1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND				1000
Conclusion	1	PASS				

Note:

RC-CSHZ-R063

mg/kg = Milligrams per kilogram

LT = Less than

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



Test Report # 22W-020292(A1) Pages: Page 14 of 23

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 No.		1	3+7	6+8+9	10+11+12	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



Test Report # 22W-020292(A1) Pages: Page 15 of 23

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 No.		13+14				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				1000
Benzyl butyl phthalate (BBP)	85-68-7	ND				1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND				1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND				1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND				1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND				1000
Conclusion	1	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



Test Report # 22W-020292(A1) Pages: Page 16 of 23

DETAILED RESULTS:

Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No).	1	3+7	6+8+9	10+11+12	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	

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



Test Report # 22W-020292(A1) Pages: Page 17 of 23

DETAILED RESULTS:

Client's Requirement, Phthalates content

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No).	13+14				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				1000
Benzyl butyl phthalate (BBP)	85-68-7	ND				1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND				1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND				1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND				1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND				1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND				1000
Diethyl phthalate (DEP)	84-66-2	ND				1000
Diisobutyl phthalate (DIBP)	84-69-5	ND				1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND				1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND				1000
Conclusion		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



Test Report # 22W-020292(A1) Pages: Page 18 of 23

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.	4					Limit
Test Item	Result (% m/m)	(% m/m)				
Total Chromium (Cr)	18.13					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.



Test Report # 22W-020292(A1) Pages: Page 19 of 23

DETAILED RESULTS:

FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimo	3				
Test Item	Test Condition		Docult	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)	extractive (mg/kg) Fill boiling Cooling to 100°F			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-R063

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



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DETAILED RESULTS:

FDA 21 CFR 177.2600, Rubber

Test Method: FDA 21 CFR 177.2600

Specimen No	2				
Test Item	Test Condition		Danielt	RL	Limit
Test item	Temp.	Duration	Result		
Distilled water extractive (mg/in²)	Reflux	First	ND	2	20
Distilled water extractive (mg/m/)	Renux	7 hours	ND	2	20
Distilled water extractive (mg/in²)	Reflux	Succeeding	ND	0.1	1
Distilled water extractive (mg/m/)		2 hours		0.1	1
n-Hexane extractive (mg/in²)	Reflux	First	1 5	15	175
II-nexame extractive (mg/m/)	Kellux	7 hours	15	15	1/5
n Hovene outractive (mg/in²)	Reflux	Succeeding	1.7	0.4	4
n-Hexane extractive (mg/in²)	Kenux	2 hours	1.7	0.4	4
Conclusion	PASS				

Note:

Temp. = Temperature

mg/in² = Milligrams per square inch

LT = Less than

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

Remark:

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

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Test Report # 22W-020292(A1) Pages: Page 21 of 23

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	1				
Test Simulant	Test Co	ndition	Result	RL	Limit
Test Simulant	Temp.	Duration	Result	KL	Liffiit
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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SPECIMEN DESCRIPTION:

RC-CSHZ-R063

Specimen No.	Specimen Description	Location
1	Transparent plastic	Lid (black style)
2	Translucent soft plastic	Slider gasket (all styles)
3	Translucent soft plastic	Sealing ring (all styles)
4	Silvery metal	Interior (black style)
5	Silvery metal	Exterior (black style)
6	Black coating	Exterior (black style)
7	Black soft plastic	Pad (black style)
8	White coating	Exterior (white style)
9	Green coating	Exterior (green style)
10	Yellow coating	Exterior (yellow style)
11	Orange coating	Exterior (orange style)
12	Red coating	Exterior (red style)
13	Purple coating	Exterior (purple style)
14	Blue coating	Exterior (blue style)

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SAMPLE PHOTO:

RC-CSHZ-R063





-End Report-