

Test report





Overall result

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

Client information

Client: SPECTOR & CO. Address: 5700 rue Kieran, Montréal, Quebec H4S 2B5 Canada





Sample information

Description:	18 OZ Double wall vacuum insulated stainless steel tumble			
Assortment:	BKL/WHT/BLU/GRN/RED/ORG/PPL/YEL			
Item no./name:	DW418	Purchase order #: -		
Item class:	GO GETTER	Factory/supplier: USN039		
Country of origin:	China	Labeled age grade: -		
Country of distribution:	Canada, United States	Tested age grade: -		
Quantity submitted:	black: 5 pcs,			
	others: 2 pcs per color + a lot			
	parts			

General information

Sample receipt date: 16-Apr-2024 Testing period: 18-Apr-2024 to 26-Apr-2024, 08-May-2024 to 11-May-2024 Report date: 11-May-2024

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Result summary

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

Test(s) conducted	Conclusion
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 in Stickers, Films and Surface Coating Materials	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	PASS
Canadian Surface Coating Materials Regulations SOR/2016-193, Total Mercury in Paints and Surface Coatings	PASS
Client's requirement, Total Nickel content	Information only
Client's Requirement, Total Tungsten content	Information only
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
EDA GRAS Specifications Total Chromium in Stainless Steel Food Containers	BAG
	PASS
FDA 21 CFR 177.1210, Closures with Sealing Gaskets	PASS PASS
FDA 21 CFR 177.1210, Closures with Sealing Gaskets FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Styrene Copolymers	PASS PASS PASS





California Proposition 65, Total Lead in Paints and Surface Coatings

Test Method:CPSC-CH-E1003-09.1Analytical Method:Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	3+8+9	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)	18	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:





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	4+5	6+7		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:





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

Test Method:	ASTM F963-23 Clause 8.3.1
Analytical Method:	Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	3+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)	18	ND	ND			90
Conclusion	PASS	PASS	PASS			

Note:

mg/kg=Milligrams per kilogram

LT = Less than

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





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

Test Method: Analytical Method:	ASTM F963-23 Clause 8.3.1 Inductively Coupled Plasma-Optical Emission Spectrometry					
Specimen No.	1	2	3+8+9	4+5	6+7	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	18	ND	ND	90
Conclusion	PASS	PASS	PASS	PASS	PASS	

Specimen No.	10+11+12	13+14				Limit
Test Item	Result	Result	Result	Result	Result	(mg/kg)
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(6/6)
Total Lead (Pb)	ND	ND				90
Conclusion	PASS	PASS				

Note:

mg/kg=Milligrams per kilogram)

LT = Less than

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





California Proposition 65, Total Cadmium in Paints and Surface Coatings

Test Method:ASTM F963-23 Clause 8.3.1Analytical Method:Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	3+8+9	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 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:





California Proposition 65, Total Cadmium in Substrate Materials

Test Method:ASTM F963-23 Clause 8.3.1Analytical Method:Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	2	4+5	6+7		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:





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

Test Method:ASTM F963-23 Clause 8.3.1Analytical Method:Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	3+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 Mercury (Hg)	ND	ND	ND			10
Conclusion	PASS	PASS	PASS			

Note:

mg/kg=Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 10 mg/kg)





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.	1+2					Limit
Test Item	Result	Result	Result	Result	Result	(mg/kg)
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(11) 187
Total Nickel (Ni)	10932					NA
Conclusion	Information only					

Note:

mg/kg = Milligrams per kilogram

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

NA = Not applicable





Client's Requirement, Total Tungsten content

Test Method:US EPA 3052:1996 & US EPA 6010D:2014Analytical Method:Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2					Limit
Test Item	Result	Result	Result	Result	Result	(mg/kg)
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(
Total Tungsten (W)	28					NA
Conclusion	Information only					

Note:

mg/kg = Milligrams per kilogram

LT = Less than

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

NA = Not applicable





Client's requirement, Bisphenol A content

Test Method:In-House MethodAnalytical Method:Liquid Chromatography-Mass Spectrometer Mass Spectrometer (LC-MS/MS)

Specimen No.		4	5	6		Client's limit
Test Item CAS No.	Result	Result	Result	Result	(mg/kg)	
Test item	Test Item CAS No.	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(8/8/
Risphonol A (RDA)	90 0E 7					Not
Displicitul A (DPA)	80-03-7	ND	ND	ND		Detected
Conclusi	on	PASS	PASS	PASS		

Note:

mg/kg=milligram per kilogram

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





Test Method:

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)

CPSC-CH-C1001-09.4

Analytical Method:	Gas Chromatog	raphy with Mass	s Spectrometry			
Specimen N	lo.	3+8+9	4+5	6+7	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
Conclusio	n	PASS	PASS	PASS	PASS	

Note:

mg/kg = Milligrams per kilogram

LT = Less than

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





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
Conclusior	1	PASS				

Note:

mg/kg = Milligrams per kilogram

LT = Less than

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





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

Test Method:CPSC-CH-C1001-09.4Analytical Method:Gas Chromatography with Mass Spectrometry

Specimen No.		3+8+9	4+5	6+7	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
Conclusior	1	PASS	PASS	PASS	PASS	

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		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:





Client's Requirement, Phthalates content

Test Method:CPSC-CH-C1001-09.4Analytical Method:Gas Chromatography with Mass Spectrometry

Specimen No.		3+8+9	4+5	6+7	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)





Client's Requirement, Phthalates content

Test Method:CPSC-CH-C1001-09.4Analytical 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)





FDA GRAS Specifications, Total Chromium in Stainless Steel Food Containers

Test Method:SN/T 2718-2010Analytical Method:Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1					Limit
Test Item	Result (% m/m)	(% m/m)				
Total Chromium (Cr)	18.97					GT 16
Conclusion	PASS					

Note:

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

Remark:

The limit is quoted from NSF/ANSI 51 - 2023 Section 4.2.1.2.





FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimo	6				
Test Item	Test Condition		Pocult	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		11	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:

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





FDA 21 CFR 180.22 and 181.32, Acrylonitrile/Styrene Copolymers

Test Method:FDA 21 CFR 180.22 and 181.32Analytical Method:Headspace-Gas Chromatography with Mass Spectrometry

Acrylonitrile Monomers:

Specimen No.			4		
Test Simulant	Test Condition		Bocult	ы	Limit
Test Simulant	Temp.	Duration	Result	RL	Linnit
3% Acetic acid extractive (mg/in ²)	120°F	2 hours	ND	0.001	0.003
Conclusion			PASS		

Specimen No	5				
Tost Simulant	Test Condition		Bocult	Ы	Limit
Test Sindant	Temp.	Duration	Result	RL	Linnit
3% Acetic acid extractive (mg/in ²)	6 Acetic acid extractive (mg/in ²) 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:

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





Salt Spray Test (NSS)

Test Method:	ASTM B117-19
Analytical Method:	ASTM D610-08(2019)
Test Condition:	Atomization and Quantity of Fog: 1.0 \sim 2.0ml/(80cm $^2\cdot$ h)
	PH of collected solution: 6.5-7.2
	Salt Solution Concentration: 5% NaCl
Test Time:	24h

Specimen Description	Surface change	Corrosion area, A (%)	Corrosion rating
18 OZ Double			
wall vacuum insulated stainless steel	A little of the surface color change, A little of base metal corrosion (See P01-P02)	1.0 <a<3.0< td=""><td>5-G</td></a<3.0<>	5-G
tumble (black style)			

Corrosion area A(%)	Rust rating
A≪0.01	10
0.01 <a≤0.03< td=""><td>9</td></a≤0.03<>	9
0.03 <a<0.1< td=""><td>8</td></a<0.1<>	8
0.1 <a≤0.3< td=""><td>7</td></a≤0.3<>	7
0.3 <a≤1.0< td=""><td>6</td></a≤1.0<>	6
1.0 <a≤3.0< td=""><td>5</td></a≤3.0<>	5
3.0 <a≤10.0< td=""><td>4</td></a≤10.0<>	4
10.0 <a≤16.0< td=""><td>3</td></a≤16.0<>	3
16.0 <a≤33.0< td=""><td>2</td></a≤33.0<>	2
33.0 <a≤50.0< td=""><td>1</td></a≤50.0<>	1
50 <a< td=""><td>0</td></a<>	0

Note:

1. Refer to ASTM D610-08(2019), rating 10 is the best, rating 0 is the worst.

2. Rust types: S: spot rusting; G: general rusting; P: pinpoint rusting; H: mixed rusting.





Specimen description

Specimen #	Specimen description	Location
1	Silvery metal	Interior (black style)
2	Silvery metal	Exterior (black style)
3	Black ink	Raw material (main body (black style))
4	Transparent plastic	Lid (black style)
5	Transparent plastic	Slider lid (black style)
6	Translucent soft plastic	Sealing ring (black style)
7	Black soft plastic with glue	Base pad (black style)
8	Deep blue ink	Raw material (main body (deep blue style))
9	Yellow ink	Raw material (main body (yellow style))
10	Orange coating	Main body (orange style)
11	Purple coating	Main body (purple style)
12	Green coating	Main body (green style)
13	Red coating	Main body (red style)
14	White coating	Main body (white style)





Sample photo:











Pictures

Sample photo:



Before Salt Spray Test(P01)

After Salt Spray Test(P02)

End of the report

The test result(s) and conclusion(s) in this report relate only to the sample(s) as received and the 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 QIMA decision rule. (<u>https://www.qima.com/conditions-of-service#decisionRule</u>). This test report may not be reproduced in whole or in part, without the written approval of QIMA (Hangzhou) Testing Co., Ltd.

