

TEST REPORT

Test Report # 21W-002926 Date of Report Issue: April 30, 2021 Date of Sample Received: March 15, 2021 Pages: Page 1 of 25

CLIENT INFORMATION:

Company: Polyconcept GBS

Recipient: kathy lu

Recipient Email: kathy.lu@polyconceptgbs.com

Approximately 2 days

SAMPLE INFORMATION:

Description: Welly® Copper Vacuum Tumbler 16oz / Welly® Traveler Copper Vacuum Bottle

18oz

Article No.: 1629-01BK / 1629-01WH Purchase Order Number: 1629-01BK

1629-03BK / 1629-03WH

PO#1900248 1629-03WH PO#1901075

Factory No.: 13467 Toy Co./Agency: -

Vendor No.: 11739 Country of Origin: China

Country of Distribution: United States Labeled Age Grade:
Quantity Submitted: 6 pcs per style Requested Age Grade: -

Testing Period: 03/29/2021-04/08/2021

04/22/2021-04/28/2021

Tested Age Grade: -

OVERALL RESULT:

Ada Guo

RC-CSHZ-R079

PASS with information

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

QIMA (HANGZHOU) TESTING CO., LTD.

QIMA (HANGZHOU) TESTING CO., LTD.

Vicky. Yu

Ada Guo

Vicky Yu

Assist Physical Laboratory Manager

Chemical Laboratory Supervisor



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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 Surface Coating Materials Regulations SOR/2016-193, Total Lead in Paints and Surface Coatings
PASS	Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content
PASS	Client's requirement, Bisphenol A content
PASS	California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)
PASS	FDA 21 CFR 177.1210, Closures with Sealing Gaskets
PASS	FDA 21 CFR 177.1520, Polypropylene Homopolymers
PASS	FDA GRAS Specifications, Total Chromium in Stainless Steel Food Containers
PASS	Client's Requirement, Leachable Lead and Cadmium from Food Contact Articles – Lip and Rim
Information only	Heat Retention Test
Information only	Cold Retention Test



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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.	1+2+9					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)	67					90
Conclusion	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.



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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.	1+2+9					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)	67					90
Conclusion	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.



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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.	3+7+11	4+6+10	8			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	30			100
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-R079

The specification is quoted from client's requirement.



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DETAILED RESULTS:

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

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1+2+9					Total
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Limit (mg/kg)
Total Lead (Pb)	67					90
Conclusion	PASS					

Note:

RC-CSHZ-R079

mg/kg=Milligrams per kilogram

LT = Less than

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

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



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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.	3+7+11	4+6+10	8			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	30			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.



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DETAILED RESULTS:

Client's requirement, Bisphenol A content

Test Method: In-House Method

Analytical Method: Gas Chromatography-Mass Spectrometer

Liquid Chromatography-Mass Spectrometer (LC-MS)

Specimen	No.	1	6	7	9	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	

Specimen No.		10	11			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			Not Detected
Conclusi	ion	PASS	PASS			

Note:

RC-CSHZ-R079

mg/kg=milligram per kilogram
ND=Not Detected(Reporting limit = 1mg/kg)



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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.	1+2+9	3+7+11	4+6+10		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-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND		1000
Conclusion	1	PASS	PASS	PASS		

Note:

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

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-R079

The specification is quoted from client's requirement.

Α0



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DETAILED RESULTS:

FDA 21 CFR 177.1210, Closures with Sealing Gaskets

Test Method: FDA 21 CFR 177.1210

Specimo	7				
Test Item	Test Condition		Dooult	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	0.25h	ND	10	50
8% Ethanol extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
Conclu	PASS				

Specimo	11				
Test Item	Test Condition		Dooult	RL	Limit
restitein	Temp.	Duration	Result		
Distilled water extractive (mg/kg)	Fill boiling	Cooling to 100°F	ND	10	50
n-Heptane extractive (mg/kg)	120°F	0.25h	11	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-R079

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



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DETAILED RESULTS:

FDA 21 CFR 177.1520, Polypropylene Homopolymers

Test Method: FDA 21 CFR 177.1520

Specim	6				
Test Item	Test C	Condition	Docult	RL	Limit
restitem	Temp.	Duration	Result		
Density (g/cc)	NA	NA	0.899	NA	0.880 –
Defisity (g/cc)	NA	IVA	0.833	IVA	0.913
Melting point (°C)	NA	NA	168	NA	150 – 180
n-Hexane extractive (% w/w)	Reflux	2 hours	0.8	0.1	6.4
Xylene extractive (% w/w)	lene extractive (% w/w) Reflux 2 hours			0.5	9.8
Concl	Conclusion				

Specim	10				
Test Item	Test C	Condition	Doords	RL	Limit
restitem	Temp.	Duration	Result		
Density (g/cc)	NA	NA 0.903	NA	0.880 -	
Density (g/ee/	1471	14/1	0.505	1474	0.913
Melting point (°C)	NA	NA	167	NA	150 – 180
n-Hexane extractive (% w/w)	Reflux	2 hours	0.9	0.1	6.4
Xylene extractive (% w/w) Reflux 2 hours		2.2	0.5	9.8	
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) 1.1.



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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.	8					Limit	
Test Item	Result (% m/m)	(% m/m)					
Total Chromium (Cr)	18.19					GT 16	
Conclusion	PASS						

Note:

% m/m = Percent by mass

GT = Greater than

Remark:

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

Α0



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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.	5-A	5-B	5-C	5-D	5-E	5-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)	390	390	390	390	390	390		
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	PASS	

Specimen No.	12-A	12-B	12-C	12-D	12-E	12-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)	390	390	390	390	390	390		
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	PASS	

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

The limit is quoted from Society of Glass & Ceramic Decorated Products.



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DETAILED RESULTS:

Heat Retention Test

Test Method: Pour boiling water into the container (to a height of approximately 1 inch under the rim). Temperature measurement was then taken and the lid screwed on hand-tight. The temperature is measured in ${}^{\circ}F$ at every 1 minute until the temperature reaches 120 ${}^{\circ}F$, the amount of time to drop from the initial temperature to 120 ${}^{\circ}F$ is shown in Table 1 and Table 2. Average time from initial temperature drop to 120 ${}^{\circ}F$ is shown in Table 3 and Table 4.

Specimen	Style
	Welly® Traveler Copper Vacuum Bottle 18oz
А	20hrs47mins
В	20hrs02mins
С	21hrs17mins
D	21hrs19mins
E	20hrs33mins
F	20hrs46mins

Table 1

Remark:

RC-CSHZ-R079

Specimen A - Style: Welly® Traveler Copper Vacuum Bottle 18oz - BL Specimen B - Style: Welly® Traveler Copper Vacuum Bottle 18oz - BL Specimen C - Style: Welly® Traveler Copper Vacuum Bottle 18oz - BL Specimen D - Style: Welly® Traveler Copper Vacuum Bottle 18oz - BL Specimen E - Style: Welly® Traveler Copper Vacuum Bottle 18oz - BL Specimen F - Style: Welly® Traveler Copper Vacuum Bottle 18oz - WH



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DETAILED RESULTS:

Specimen	Style
	Welly® Copper Vacuum Tumbler 16oz
А	7hrs7mins
В	7hrs18mins
С	7hrs40mins
D	7hrs28mins
E	7hrs33mins
F	6hrs35mins

Table 2

Remark:

RC-CSHZ-R079

Specimen A - Style: Welly® Copper Vacuum Tumbler 16oz- BL Specimen B - Style: Welly® Copper Vacuum Tumbler 16oz- BL Specimen C - Style: Welly® Copper Vacuum Tumbler 16oz- BL Specimen D - Style: Welly® Copper Vacuum Tumbler 16oz- BL Specimen E - Style: Welly® Copper Vacuum Tumbler 16oz- BL Specimen F - Style: Welly® Copper Vacuum Tumbler 16oz - WH



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DETAILED RESULTS:

	Style
	Welly® Traveler Copper Vacuum Bottle 18oz
Average time from initial temperature drop to 120°F	20hrs47mins

Table 3

	Style
	Welly® Copper Vacuum Tumbler 16oz
Average time from initial temperature drop to 120°F	7hrs16mins

Table 4



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DETAILED RESULTS:

Cold Retention Test

Test Method: The products were conditioned at 72°F for 1 minute. The products were then filled with ice cube as much as the container can fit in. Fill the product to its normal capacity of $60^{\circ}F$ water, insert thermocouple, and the lid was screwed hand-tight. The temperature was measured in o F at every 1 minute until the temperature reaches $72^{\circ}F$, the amount of time to change from $60^{\circ}F$ to $72^{\circ}F$ was recorded in Table 5 and Table 6. Average time from initial temperature rise to $72^{\circ}F$ is shown in Table 7 and Table 8.

Specimen	Style
	Welly® Traveler Copper Vacuum Bottle 18oz
А	52hrs46mins
В	51hrs13mins
С	53hrs07mins
D	52hrs40mins
E	52hrs25mins
F	52hrs41mins

Table 5

Remark:

RC-CSHZ-R079

Specimen A - Style: Welly® Traveler Copper Vacuum Bottle 18oz - WH Specimen B - Style: Welly® Traveler Copper Vacuum Bottle 18oz - WH Specimen C - Style: Welly® Traveler Copper Vacuum Bottle 18oz - WH Specimen D - Style: Welly® Traveler Copper Vacuum Bottle 18oz - WH Specimen E - Style: Welly® Traveler Copper Vacuum Bottle 18oz - WH Specimen F - Style: Welly® Traveler Copper Vacuum Bottle 18oz - BL



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DETAILED RESULTS:

Specimen	Style
	Welly® Copper Vacuum Tumbler 16oz
А	30hrs38mins
В	29hrs48mins
С	28hrs29mins
D	30hrs39mins
E	30hrs37mins
F	28hrs28mins

Table 6

Remark:

RC-CSHZ-R079

Specimen A - Style: Welly® Copper Vacuum Tumbler 16oz- WH Specimen B - Style: Welly® Copper Vacuum Tumbler 16oz- WH Specimen C - Style: Welly® Copper Vacuum Tumbler 16oz-WH Specimen D - Style: Welly® Copper Vacuum Tumbler 16oz-WH Specimen E - Style: Welly® Copper Vacuum Tumbler 16oz- WH Specimen F - Style: Welly® Copper Vacuum Tumbler 16oz - BL



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DETAILED RESULTS:

RC-CSHZ-R079

	Style
	Welly® Traveler Copper Vacuum Bottle 18oz
Average time from initial temperature rise to 72 °F	52hrs28mins

Table 7

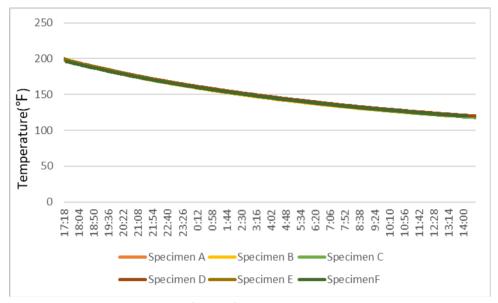
	Style
	Welly® Copper Vacuum Tumbler 16oz
Average time from initial temperature rise to 72 °F	29hrs46mins

Table 8

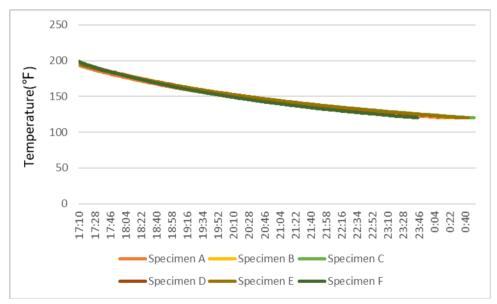
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DETAILED RESULTS:



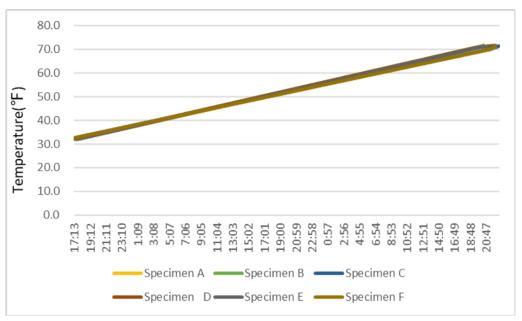
Graph 1 - Heat Retention of Welly® Traveler Copper Vacuum Bottle 18oz



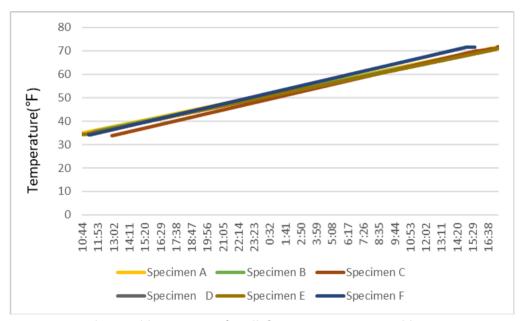
Graph 2 - Heat Retention of Welly® Copper Vacuum Tumbler 16oz

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DETAILED RESULTS:



Graph 3 - Cold Retention of Welly® Traveler Copper Vacuum Bottle 18oz



Graph 4 - Cold Retention of Welly® Copper Vacuum Tumbler 16oz



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SPECIMEN DESCRIPTION:

Specimen no.	Specimen description	Location
1	Black coating	Main body (black big style)
2	Transparent lacquer	Main body (black big style)
3	Black soft plastic	Bottom (black big style)
4	Black plastic	Bottom (black big style)
5	Black coated silvery metal	Lip (black small style)
6	Black plastic	Lid (black small style)
7	Black soft plastic	Sealing ring (black small style)
8	Silvery metal	Interior (black small style)
9	White coating	Main body (white big style)
10	White plastic	Lid (white big style)
11	White soft plastic	Sealing ring (white big style)
12	White coated silvery metal	lip (white small style)



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SAMPLE PHOTO:

30108022515







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SAMPLE PHOTO:







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SAMPLE PHOTO:





-End Report-