



CONSUMER PRODUCTS SERVICES DIVISION

## VISSTUN

**Technical Report:** (5114)115-0008C  
Date Received: May 21, 2014

June 05, 2014  
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UNITED STATES

Sample Description:	DISPOSABLE CAPPUCCINO LIDS	Sample Size:	5
Vendor:	VARIOUS	Style No(s):	N/A
Manufacturer:	VARIOUS	SKN/SKU No.:	N/A
Buyer:	N/A	PO No.:	N/A
Labeled Age Grade:	NOT PRESENT	Ref #:	N/A
Appropriate Age Grade:	ADULT	Country of Origin:	UNITED STATES
Client Specified Age Grade:	3+	Assortment No.:	N/A
Tested Age Grade:	CHILDREN PRODUCTS, OVER 3 YEARS OF AGE		
UPC Code:	N/A		

### **EXECUTIVE SUMMARY:**

The sample(s) MEETS for the following requirement(s):

- The cadmium content requirement of the European Regulation (EC) No. 1907/2006 of the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Annex XVII concerning the Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles, Item no. 23 (amended up to EU No. 835/2012).\*
- The heavy metals requirements of the European "Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste."
- The limits set forth in US Food and Drug Administration (FDA), Title 21, Code of Federal Regulations (CFR), Section 177.1640 "Indirect Food Additives: Polymers - Polystyrene and Rubber-Modified Polystyrene", for use as components of articles intended to be contact with aqueous products, fatty foods and dry foods.
- The total lead content of 100ppm requirements in substrate materials (Consumer Products Safety Improvement Act (CPSIA) of 2008).\*
- The total lead content of substrate materials requirements of Illinois Lead Poisoning Prevention Act, Public Act 095-1019.\*
- The heavy metals content in packaging requirements of Model Toxics Legislation of the Toxics in Packaging Clearinghouse, TPCH (formerly the Coalition of Northeastern Governors, CONEG).
- The E. coli requirement of the client's specification.
- The salmonella requirement of the client's specification.
- The pseudomonas aeruginosa requirement of the client's specification.
- The staphylococcus aureus requirement of the client's specification.

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The sample(s) MEETS for the following requirement(s): *(continued)*

- The total coliform requirement of the client's specification.
- The total plate count requirement of the client's specification.
- The soluble heavy metals content requirement of client's specification.
- The requirements of Packaging Authorization for Trademark Vessels for use with vessels bearing trademarks of the Coca-Cola Company.

PK-SP-105 – Microbiological Cleanliness - Trademark Vessels  
PK-SP-110 – Environmental Regulations - Trademark Vessels  
PK-SP-111 – Lead & Heavy Metals - Trademark Vessels  
PK-SP-112 – Extraction - Trademark Vessels  
PK-SP-115 – Lid - Trademark Vessels

Note: Tests indicated with an asterisk (\*) were conducted at the client's request.

Note: No accessible surface coating was present on the received sample(s). Consequently, the lead content analysis of surface coatings according to modified 16 CFR 1303, "Ban of lead-containing paint and certain consumer products bearing lead-containing paint" (Consumer Products Safety Improvement Act (CPSIA) of 2008), was not conducted.

Note: No accessible surface coating was present on the received sample(s). Consequently, the lead content analysis of surface coatings according to Illinois Lead Poisoning Prevention Act, Public Act 095-1019, was not conducted.

Note: The sample(s) was analyzed using analytical procedures taken from the following chapters of the U.S. Food and Drug Administration, Bacteriological Analytical Manual- Online, <http://www.cfsan.fda.gov/~ebam> :

- Chapter 3- Aerobic Plate Count: January 2001
- Chapter 4- Enumeration of *Escherichia coli* and the Coliform Bacteria: September 2002
- Chapter 5- *Salmonella*: April 2003; Updated September 2005, December 2005, June 2006, and December 2007
- Chapter 12- *Staphylococcus aureus* : January 2001
- Chapter 18- Yeasts, Molds and Mycotoxins: January 2001



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Bureau Veritas  
Consumer Products Services, Inc.

A handwritten signature in black ink that reads 'Daniel Warf'.

Daniel Warf  
Associate Product Test Engineer,  
Toy and Juvenile Products Department

/cq

cc: MONIQUE FAVREAU, VISSTUN



**RESULTS:**

**CADMIUM CONTENT (European Regulation (EC) No. 1907/2006 REACH Annex XVII, Item no. 23)**

Category:				Plastics			
Element:				Cadmium			
Test Method				BS EN 1122: 2001, Method B			
Maximum Allowable Limit:				100 mg/kg (0.01% by weight)			
Sample Description				Reading 1	Reading 2	Average	Conclusion
Color / Component		Location	Style	Result (mg/kg)			
(A)	White plastic	Lids	-	LT 5.00	LT 5.00	LT 5.00	Pass
(B)	Black plastic	Lids	-	LT 5.00	LT 5.00	LT 5.00	Pass

LT = Less than  
 # = Insufficient sample for duplicate analyses  
 mg/kg = milligrams per kilogram (ppm = parts per million)

**TOTAL LEAD CONTENT IN SUBSTRATES (Illinois General Assembly, Public Act 095-1019)**

Test Method: Acid digestion followed by Atomic Absorption Spectrophotometry or Inductively Coupled Plasma Spectrometry

Element:				Lead	
Requirement: Maximum allowable limit: (mg/kg)				40 mg/kg	
Sample Description				Result (mg/kg)	Conclusion
Color / Component		Location	Style		
(A)	White plastic	Lids	-	LT 5.00	Pass
(B)	Black plastic	Lids	-	LT 5.00	Pass

LT = Less Than  
 \* = Average of duplicate analyses  
 mg/kg = milligrams per kilogram (ppm = parts per million)

**TOTAL LEAD CONTENT IN SUBSTRATE (100PPM) (Consumer Product Safety Improvement Act (CPSIA) of 2008)**

Test Method: U.S. CPSC-CH-E1001-08.1 (June 21, 2010) or U.S. CPSC-CH-E1002-08.1 (June 21, 2010).

Analyte				Lead	
Requirement: Maximum allowable limit:				100 mg/kg	
Sample Description				Result (mg/kg)	Conclusion
Color / Component		Location	Style		
(A)	White plastic	Lids	-	LT 5.00	Pass
(B)	Black plastic	Lids	-	LT 5.00	Pass

LT = Less Than  
 \* = Average of duplicate analyses  
 mg/kg = milligrams per kilogram (ppm = parts per million)



**RESULTS:**

HEAVY METALS PRESENT IN PACKAGING (European Council Directive 94/62/EC on Packaging and Packaging Waste)

Sample Identity	Color / Component	Location	Product style
(A)	White plastic	Lids	-
(B)	Black plastic	Lids	-

Sample Identity:	(A)	(A)	Maximum Allowable Limit (mg/kg)
Parameter:	The sum of lead, cadmium, mercury and hexavalent chromium		
Element	Result (mg/kg (ppm))		
Cadmium	LT 5.00	LT 5.00	-----
Chromium	LT 5.00	LT 5.00	-----
Mercury	LT 5.00	LT 5.00	-----
Lead	LT 5.00	LT 5.00	-----
Sum	LT 20.0	LT 20.0	100
Conclusion:	Pass	Pass	-----

*LT = Less Than*

*mg/kg = milligrams per kilogram (ppm = parts per million)*



**RESULTS:**

**Heavy Metals Content in Packaging or Packaging Materials - United States Toxics in Packaging Clearinghouse (TPCH), Model Toxics in Packaging Legislation with Revisions up to December 2008**

**Test Method I** : With reference to U.S. EPA 3050B: 1996.

**Test Method II** : With reference to U.S. EPA 3051/3052: 1996.

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
(A)	White plastic	Lids	-
(B)	Black plastic	Lids	-

Element(s)	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)
<b>Maximum Allowable Limit (mg/kg)</b>		<b>100 mg/kg ( Sum )</b>		

-	Unit	Result	
Test Item(s)	-	A	B
Test Method	-	II	II
Parameter	-	-	-
Sum of Pb, Cd, Hg & Cr VI	mg/kg	LT 20.0	LT 20.0
<b>Conclusion</b>	-	Pass	Pass

Note / Key :

ND = Not detected                      LT = Less than                      \* = average of duplicate analysis  
 mg/kg = milligram(s) per kilogram = ppm = part(s) per million      10000 mg/kg = 1 %  
 \*\* = sample did not digest              EPA = Environmental Protection Agency  
 ISO = International Organization of Standardization  
 Detection Limit (mg/kg) : Sum 20

Remark :

- This legislation was originally drafted by the Source Reduction Council of the Coalition of Northeastern Governors (CONEG).
- According to Model Toxics in Packaging Legislation with Revisions up to December 2008, Section 5(c), exemption were granted to recycled material containing up to 200 milligrams per kilogram for the sum of lead, cadmium, mercury and hexavalent chromium.
- Unless further specified, the reported result(s) of Test Item(s) was (were) performed by total metal(s) content analysis through complete decomposition.
- Test Item(s) marked as "recycled" was (were) claimed as recycled material by client. Therefore, this (these) Test Item(s) containing the found sum of lead, cadmium, mercury and hexavalent chromium level should be exempted.
- Total chromium (Cr) may have been detected in the result(s). Therefore, Test Method(s), with reference to U.S. EPA 3060A: 1996 and (or) with reference to International Standard ISO 3613: 2010, was (were) further performed on this (these) Test Item(s) in confirming the presence of hexavalent chromium.



**RESULTS:**

**SOLUBLE HEAVY METALS CONTENT (Client's specification)**

Sample Identity	Color	Location	Style
(C)	White plastic	Lid	-
(D)	Black plastic	Lid	-

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Maximum Limit (mg/kg)	25	1000	75	60	60	90	60	500
Analytical Correction	60%	30%	30%	30%	50%	30%	60%	60%

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se	Mass of Trace Amount	Conclusion
Sample	Result (mg/kg)								(g)	
C.	LT 2.5	LT 100	LT 7.5	LT 6.0	LT 6.0	LT 9.0	LT 6.0	LT 50	-	Pass
D.	LT 2.5	LT 100	LT 7.5	LT 6.0	LT 6.0	LT 9.0	LT 6.0	LT 50	-	Pass

LT = Less Than  
 CR = adjusted analytical result  
 mg/kg = milligrams per kilogram (ppm=parts per million)  
 \* = Average of duplicate analysis

As = Arsenic, Ba = Barium, Cd = Cadmium,  
 Cr = Chromium, Hg = Mercury, Pb = Lead,  
 Sb = Antimony, Se = Selenium



**RESULTS:**

**FDA FOOD SIMULATING SOLVENT EXTRACTIVES**  
**POLYMERS - POLYSTYRENE AND RUBBER-MODIFIED POLYSTYRENE**

The samples were tested according to the Food and Drug Administration (FDA), Title 21, Code of Federal Regulations (CFR), Section 177.1640 "Indirect Food Additives: Polymers - Polystyrene and Rubber-Modified Polystyrene."

Sample Description: Composite of white and black plastic

PARAMETER	RESULT	REQUIREMENT	CONCLUSION
1. Residual Styrene Monomer in Polystyrene	<0.0614 %	≤ 1.0% ≤ 0.5% (Fatty foods)	Pass

LT = Less Than  
≤ = Less than or equivalent to  
\* = Average of duplicate analyses  
The result is reported as percent by weight, total residual styrene monomer.





Sample #	(5114)115-0008
Sample ID:	Disposable Cappuccino Lids

**RESULTS:**

TEST	LIMIT	RESULT
Total Plate Count	< 250 cfu/premium	< 10 cfu/premium
Total Coliform	< 10 MPN/premium	< 0.3 MPN/premium
<b><i>E. coli</i></b>	Negative	Negative
<i>Staphylococcus aureus</i>	Negative	Negative
<i>Pseudomonas aeruginosa</i>	Negative	Negative
<b><i>Salmonella</i></b>	Negative	Negative

- The sample(s) was analyzed using the *Pseudomonas aeruginosa* screen procedure taken from the USP <62> Microbiological Examination of Nonsterile Products: Tests for Specified Microorganisms taken from the 35<sup>th</sup> edition of the United States Pharmacopeia, NF30, 2012.

Sample received and tested in good condition unless otherwise noted.

est. = Refers to actual counts not in the range of 30 to 300 colonies. When these counts are performed on diluted samples the final count may appear to be within this range when in actuality it was not.

cfu = colony forming units

g = gram

< = less than

**EXHIBIT # 1**



**SAMPLE PRODUCT**