



REPORT

Technical Report: (5109)041-0116

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February 20, 2009





EXECUTIVE SUMMARY:

At the request of the client, the submitted sample(s) were evaluated for **FOOD SIMULATING SOLVENT EXTRACTIVES AND PHTHALATES TESTING** only.

The sample(s) received an **APPROVED** rating.

For general inquiries, please contact Bureau Veritas at (716) 505-3300.

Bureau Veritas
Consumer Products Services, Inc.

A handwritten signature in blue ink that reads 'Joseph L. Keem'.

Joseph L. Keem
Product Test Engineer,
Hardlines Department
joseph.keem@us.bureauveritas.com

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RESULTS:

FDA FOOD SIMULATING SOLVENT EXTRACTIVES
POLYMERS: OLEFIN POLYMERS - OLEFIN BASIC COPOLYMERS

The samples were tested according to the Food and Drug Administration (FDA), Title 21, Code of Federal Regulations (CFR), Section 177.1520 "Indirect Food Additives: Polymers - Olefin Polymers - Olefin Basic Copolymers (Described in paragraph (a)(3)(i))".

Sample Description: White Plastic Lid

Condition of Use: For use in articles that contact food except for articles used for packing or holding food during cooking.

PARAMETER	RESULT	REQUIREMENT	CONCLUSION
- Density	0.95 g/cc	0.85-1.00 g/cc	Pass
- Hexane Extractables	2.9 %	≤5.5%	Pass
- Solubles Xylene	10.9 %	≤30.0%	Pass
g/cc = grams per cubic centimetre ≤ = Less than or equivalent to * = Average of duplicate analyses LT = Less Than			

FDA FOOD SIMULATING SOLVENT EXTRACTIVES
POLYMERS: OLEFIN POLYMERS - POLYETHYLENE

The sample was tested according to FDA Title 21, Code of Federal Regulations (CFR), Section 177.1520 "Indirect Food Additives: Polymers - Olefin Polymers, Polyethylene."

Sample Description: Yellow, Orange, Green & Blue Plastic Cups

Condition of Use: For use in articles that contact food except for articles used for packing or holding food during cooking.

PARAMETER	RESULT	REQUIREMENT	CONCLUSION
- Density	0.98 g/cc	0.85-1.00 g/cc	Pass
- n-Hexane Extract	0.8 %	≤5.5%	Pass
- Solubles Xylene	0.7 %	≤11.3%	Pass
g/cc = grams per cubic centimetre ≤ = Less than or equivalent to * = Average of duplicate analyses LT = Less Than			



RESULTS:

FDA FOOD SIMULATING SOLVENT EXTRACTIVES
INDIRECT FOOD ADDITIVES – POLYETHYLENE PHTHALATE POLYMERS

The sample(s) was evaluated according to the US Food and Drug Administration (FDA), Title 21, Code of Federal Regulations (CFR), Section 177.1630, "Indirect Food Additives: Polyethylene phthalate polymers."

Condition of Use: The plastics are used for packaging, transporting, or holding food, excluding alcoholic beverages, at temperatures not to exceed 250°F.

Sample Description: Yellow, Orange, Green & Blue Plastic Straws

Parameter	Result (mg/sq. in)	Maximum Allowable Limit (mg/sq. in)	Conclusion
• Distilled water 250°F, 2hrs.	0.3	0.5	Pass
• n-Heptane 150°F, 2 hrs.	LT 0.1	0.5	Pass

LT = Less Than

N/A = Not Applicable

mg/sq. in. = milligrams per square inch (of food-contact surface)

** = An average of duplicate analyses.*



RESULTS:

PHTHALATES CONTENT IN TOYS AND CHILDCARE ARTICLES (California Assembly Bill AB1108 BBP/DBP/ DEHP/DNOP/DINP/DIDP CONTENT)

Component

- A. Composite Green/ Yellow Straw
- B. Composite Green/ Yellow Cup
- C. Composite Blue/ Orange Cup
- D. Composite Blue/ Orange Straw
- E. Composite White Cap

Phthalate								Conclusion
BBP, % by wt	DBP, % by wt	DEHP, % by wt	DNOP, % by wt	DINP, % by wt	DIDP, % by wt	Limits, % by wt		
A.	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1	Data
B.	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1	Data
C.	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1	Data
D.	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1	Data
E.	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1	Data

Key:

BBP = Butyl benzyl phthalate

DBP = Dibutyl phthalate

DEHP = Di(2-ethylhexyl) phthalate

DNOP = Di-n-octyl phthalate

DINP = Di-iso-nonyl phthalate

DIDP = Di-iso-decyl phthalate

Results reported in percentage

LT = Less than

ND = None detected

GT = Greater than

- Note: 1) According to the California AB1108, DEHP, BBP and DBP Shall not be used as substances or as constituents of preparations, at concentrations of greater than 0.1 % by mass of the plasticised material, in toys and childcare articles.
- 2) According to the California AB1108, DINP, DIDP and DNOP Shall not be used as substances or as constituents of preparations, at concentrations of greater than 0.1 % by mass of the plasticised material, in toys and childcare articles which can be placed in the mouth by children ages 3 and under.