

Test Report

Number: SHAH01761154

Applicant: PF CONCEPT INTERNATIONAL COOPERATIEF U.A
KABELWEG 1
2371 DX ROELOFARENDSEVEEN
THE NETHERLANDS
Attn: Jasmine Gu/Sonia HE

Date: Dec 03, 2024

Sample Description:

Item Name : Billie 300ml ceramic mug
Item No. : 10084701-WH, 10084740-PK, 10084750-LBL, 10084790-BK
Vendor : #11700/#12331
Goods Exported To : Europe
Country Of Origin : China
P.O. No. : PO#666122
Date Sample Received : 18 Nov, 2024
Testing Period : 18 Nov, 2024 To 02 Dec, 2024

Tests Conducted:

As requested by the applicant, for details refer to attached page(s).

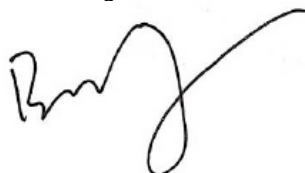
Conclusion:

Tested Sample	Standard	Result
Tested Component of Submitted Sample	Dutch Commodities Act on Packagings and Consumer Articles Regulation (Warenwetregeling verpakkingen en gebruiksartikelen) Annex A Chapter VI on overall migration	Pass
	European Council Directive 84/500/EEC and Commission Directive 2005/31/EC on leachable lead and cadmium released from ceramic article intended to come into contact with foodstuff	Pass
	Dutch Commodities Act on Packagings and Consumer Articles Regulation (Warenwetregeling verpakkingen en gebruiksartikelen) Annex A Chapter VI on Specific Migration of Heavy Metals on Ceramic / Enamel Ware	Pass
	Cadmium content requirement in Commission Regulation (EU) No. 494/2011 of 20 May 2011, (EU) No. 835/2012 of 18 September 2012 and (EU) No. 2016/217 of 16 February 2016 Amending Annex XVII entry 23 of the REACH Regulation (EC) No. 1907/2006	Pass

To be continued

Authorized By:

For Intertek Testing Services Ltd., Shanghai



Bill Zhang
General Manager



Test Report

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Tested Sample
Tested components of
submitted sample

Standard
Lead content requirement in Commission Regulation (EU)
2015/628 of 22 April 2015 Amending Annex XVII Entry 63 of
the REACH Regulation (EC) No. 1907/2006

Result
Pass

Regulation (EU) No 2019/1021 on Persistent Organic
Pollutants (POPs) and Amendment (EU) 2021/277 for
Pentachlorophenol (PCP) content

Pass

Client's requirement on formaldehyde release content

Pass

Cobalt dichloride, Cobalt (II) carbonate, Cobalt (II) diacetate,
Cobalt (II) dinitrate and Cobalt (II) sulphate content (SVHC
substance)

Pass

Disodium tetraborate, anhydrous, Tetraboron disodium
heptoxide, hydrate and Diboron trioxide content (SVHC
substance)

Pass

To be continued

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General Manager



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Tests Conducted

1 Overall Migration

As per Dutch Commodities Act on Packagings and Consumer Articles Regulation (Warenwetregeling verpakkingen en gebruiksartikelen) Annex B chapter 4 and Commission Regulation (EU) No. 10/2011.

I. Test condition:

Tested Component	Food Simulant	Time (hour)	Temperature (°C)
(3)	3% (w/v) Acetic acid	2	70
	50% (v/v) Ethanol	2	70

II. Test result:

17. Test Result:				
Food Simulant	Result (mg/kg)			Limit (mg/kg)
	(3)			
	1 st	2 nd	3 rd	
3% (w/v) Acetic acid	11	ND	ND	60
50% (v/v) Ethanol	ND	ND	ND	60

Requirement:

Result of 3rd migration < OML, and

Result of 1st migration ≥ 2nd migration ≥ 3rd migration after consideration of result uncertainty.

Remark: ND = Not detected

Reporting Limit = 10mg/kg

As per client's request, the above condition and food simulant was used for the test.

Tested Component(s): See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.26, 2024

2 Leachable Lead and Cadmium Content

As per European Council Directive 84/500/EEC and Commission Directive 2005/31/EC by inductively coupled plasma emission spectrometer analysis.

Test Condition: 4% acetic acid, (20-24) °C, 24 hours

Tested Specimen (3)	Leaching Volume (mL)	Result (mg/L)	
		Lead	Cadmium
(1)	300	<0.2	<0.02
	Limit (Category 2):	4.0	0.3

Detection Limit: Lead: 0.2 mg/L, Cadmium: 0.02 mg/L

Tested Component: See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.19, 2024

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Tests Conducted

- 3 Dutch Commodities Act on Packagings and Consumer Articles Regulation (Warenwetregeling verpakkingen en gebruiksartikelen) Annex A Chapter VI on Specific Migration of Heavy Metals on Ceramic / Enamel Ware

With reference to Annex B of Commodities Act on Packagings and Consumer Articles Regulation (Warenwetregeling verpakkingen en gebruiksartikelen), followed by Inductively Coupled Plasma –Mass Spectrometry (ICP-MS) analysis.

I. Test Condition:

Food Simulant	Time and Temperature
3% (w/v) Acetic Acid	2 hours at 70 °C

II. Test Result:

Element	Result in mg/kg			Reporting Limit (mg/kg)	Limit (mg/kg)
	(3)				
	1 st	2 nd	3 rd		
Arsenic (As)	ND	ND	ND	0.005	0.01
Barium (Ba)	ND	ND	ND	0.25	1
Boron (B)	ND	ND	ND	0.2	1
Cadmium (Cd)	ND	ND	ND	0.001	0.01
Chromium (Cr)	ND	ND	ND	0.01	0.1
Cobalt (Co)	ND	ND	ND	0.01	0.05
Mercury (Hg)	ND	ND	ND	0.001	0.005
Lead (Pb)	ND	ND	ND	0.01	0.1
Lithium (Li)	ND	ND	ND	0.1	0.6
Rubidium (Rb)	ND	ND	ND	0.2	1
Selenium (Se)	ND	ND	ND	0.005	0.01
Strontium (Sr)	ND	ND	ND	0.2	1

Requirement:

Result of 3rd migration < SML, and

Result of 1st migration ≥ 2nd migration ≥ 3rd migration after consideration of result uncertainty.

Remark: ND = Not detected

Ratio of food contact surface area to volume of component (3) used to establish the compliance of material or article = 2.1 dm² : 300 mL.

As per client's request, the above condition and food simulant was used for the test.

Tested Component: See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.29, 2024

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4 Cadmium (Cd) Content (EU REACH ANNEX XVII Entry 23)

With reference to methods EN 1122 (Method B)/ IEC 62321:2008/ ISO 11885:2007, acid digestion method was used and total Cadmium content was determined by Inductively Coupled Argon Plasma Spectrometry.

<u>Tested Component</u>	<u>Result in %</u>
(1)	ND
(2)	ND
(3)	ND
(4)	ND
(5)	ND

Requirement:	
<u>Category</u>	<u>Limit (%)</u>
Painted article	0.1
Plastic	0.01
Metal parts of jewellery & hair accessories	0.01

Remark: ND = Not detected (<0.0005%)

Tested Components: See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.25, 2024

5 Lead (Pb) Content (REACH Regulation (EC) No 1907/2006 Annex XVII Entry 63)

With reference to method IEC 62321-5:2013, microwave digestion method was used and total Lead content was determined by Inductively Coupled Argon Plasma Spectrometry.

<u>Test Item</u>	<u>Result (%)</u>					<u>Reporting Limit (%)</u>	<u>Limit (%)</u>
	(1)	(2)	(3)	(4)	(5)		
Lead (Pb)	0.0035	0.0051	0.0046	0.0041	0.034	0.001	0.05

The limit was quoted according to Commission Regulation (EU) 2015/628 amending the REACH Regulation (EC) No 1907/2006 Annex XVII (Entry 63) for Lead content in articles which may be placed in the mouth by children during normal or reasonably foreseeable conditions of use.

Remark: ND = Not detected (Less than reporting limit)

Tested Components: See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.25, 2024

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Tests Conducted

6 Pentachlorophenol (PCP) Content

With reference to PD CEN/TR 14823: 2003, solvent extraction was used and followed by Gas Chromatography-Mass Spectrometric (GC-MS) analysis.

<u>Test Item</u>	<u>Result (mg/kg)</u>	<u>Detection Limit (mg/kg)</u>	<u>Requirement (mg/kg) (Max.)</u>
	(5)		
Pentachlorophenol (PCP)	ND	0.1	5

The limit was quoted according to Regulation (EU) 2019/1021 on persistent organic pollutants (POPs) and Amendment (EU) 2021/277 for Pentachlorophenol (PCP) content.

Remark: ND = Not Detected (Less than detection limit)

Tested Components: See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.21, 2024

7 Formaldehyde Release Content

As per test method EN 717-3:1996, formaldehyde release content was determined by UV-Visible Spectrophotometer(UV-Vis) analysis.

<u>Tested Component</u>	<u>Moisture Content(%)</u>	<u>Result (mg/kg)</u>	<u>Client's Requirement (mg/kg)</u>
(5)	4.7	ND	80

Remark: ND = Not Detected

Detection Limit = 5 mg/kg (based on dry weight)

Tested Components: See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.21, 2024

8 Cobalt Dichloride, Cobalt (II) Carbonate, Cobalt (II) Diacetate, Cobalt (II) Dinitrate and Cobalt (II) Sulphate Content

By acid digestion and followed by Inductively Coupled Plasma- Optical Emission Spectrometer (ICP-OES) analysis.

<u>Test Item</u>	<u>CAS No.</u>	<u>Result (% w/w)</u> (1+2+3+4)
Cobalt dichloride Δ	7646-79-9	ND
Cobalt (II) carbonate Δ	513-79-1	ND
Cobalt (II) diacetate Δ	71-48-7	ND
Cobalt (II) dinitrate Δ	10141-05-6	ND
Cobalt (II) sulphate Δ	10124-43-3	ND

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Tests Conducted

Remark: ND = Not Detected (Less than detection limit)

Detection limit = 0.01%

Δ = Determination was based on elemental analysis. The content was calculated based on assumption of worst-case.

REACH requirement:

As per Article 7 of Regulation (EC) No 1907/2006 (REACH) as amended, if a substance of very high concern (SVHC) on the Candidate List for Authorisation is present in articles above a concentration of 0.1% weight by weight (w/w) and the substance is present in those articles in quantities totalling over 1 tonne per producer or per importer per year, then the producer or importer shall notify the European Chemicals Agency (ECHA). The notifications have to be submitted no later than 6 months after the inclusion in the Candidate List. The information to be notified shall include the following:

- (a) Identity and contact details of the producer or importer;
- (b) Registration number(s), if available;
- (c) Identity of the substance;
- (d) Classification of the substance(s);
- (e) Brief description of the use(s) of the substance(s) in the article and of the uses of the article(s);
- (f) Tonnage range of the substance(s).

As per Article 31 of Regulation (EC) No 1907/2006 (REACH) as amended, the supplier of mixture not classified as hazardous according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP), shall provide the recipient at his request with a safety data sheet, where a mixture contains at least one substance on the SVHC list (Candidate List of substances of very high concern for Authorisation) and its individual concentration is of 0.1% or above by weight for non-gaseous mixtures.

As per Article 33(1) of Regulation (EC) No 1907/2006 (REACH) as amended, any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with information of safe use of the article. An article meets the requirement of Article 33(1) by default when no SVHC exceeds 0.1% weight by weight (w/w).

As per Article 33(2) of Regulation (EC) No 1907/2006 (REACH) as amended, any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) shall provide the consumer on request with information of safe use of the article, within 45 days of receipt of the request.

As per Court of Justice of the European Union Judgment in Case C-106/14, Press Release No 100/15 dated 10 September 2015, each of the articles incorporated as a component of a complex product is covered by the relevant duties to notify and provide information when they contain a substance of very high concern in a concentration above 0.1% of their mass.

Tested Components: See component list in the last section of this report.

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.22, 2024

To be continued

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Tests Conducted

9 Disodium Tetraborate, anhydrous, Tetraboron Disodium Heptoxide, hydrate and Diboron Trioxide Content

By acid digestion and followed by Inductively Coupled Plasma- Optical Emission Spectrometer (ICP-OES) analysis.

<u>Test Item</u>	<u>CAS No.</u>	<u>Result (% w/w)</u> (1+2+3+4)
Disodium tetraborate, anhydrous Δ	1303-96-4 1330-43-4 12179-04-3	ND
Tetraboron disodium heptoxide, hydrate Δ	12267-73-1	ND
Diboron trioxide Δ	1303-86-2	ND

Remark: ND = Not Detected (Less than detection limit)

Detection limit = 0.01%

Δ = Determination was based on elemental analysis. The content was calculated based on assumption of worst-case.

REACH requirement:

As per Article 7 of Regulation (EC) No 1907/2006 (REACH) as amended, if a substance of very high concern (SVHC) on the Candidate List for Authorisation is present in articles above a concentration of 0.1% weight by weight (w/w) and the substance is present in those articles in quantities totalling over 1 tonne per producer or per importer per year, then the producer or importer shall notify the European Chemicals Agency (ECHA). The notifications have to be submitted no later than 6 months after the inclusion in the Candidate List. The information to be notified shall include the following:

- (g) Identity and contact details of the producer or importer;
- (h) Registration number(s), if available;
- (i) Identity of the substance;
- (j) Classification of the substance(s);
- (k) Brief description of the use(s) of the substance(s) in the article and of the uses of the article(s);
- (l) Tonnage range of the substance(s).

As per Article 31 of Regulation (EC) No 1907/2006 (REACH) as amended, the supplier of mixture not classified as hazardous according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP), shall provide the recipient at his request with a safety data sheet, where a mixture contains at least one substance on the SVHC list (Candidate List of substances of very high concern for Authorisation) and its individual concentration is of 0.1% or above by weight for non-gaseous mixtures.

As per Article 33(1) of Regulation (EC) No 1907/2006 (REACH) as amended, any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with information of safe use of the article. An article meets the requirement of Article 33(1) by default when no SVHC exceeds 0.1% weight by weight (w/w).

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As per Court of Justice of the European Union Judgment in Case C-106/14, Press Release No 100/15 dated 10 September 2015, each of the articles incorporated as a component of a complex product is covered by the relevant duties to notify and provide information when they contain a substance of very high concern in a concentration above 0.1% of their mass.

To be continued



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Tests Conducted

Tested Components: See component list in the last section of this report.



Picture of sample

Date Sample Received: Nov.18, 2024

Testing Period: Nov.18, 2024 To Nov.22, 2024

Components List:

- (1) White ceramic mug (body)
- (2) White/pink ceramic mug (body)
- (3) White/blue ceramic mug (body)
- (4) White/black ceramic mug (body)
- (5) Cork

End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band $w = U$) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

The sample(s) and sample information hereto are provided by the client who shall be solely responsible for the authenticity and integrity thereof. The results shown in this report relate only to the sample(s) received and tested. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. This report shall not be reproduced unless with prior written approval from Intertek Testing Services Shanghai Ltd.