TEST REPORT

Applicant	:	Chengdu Ziliihood Cultural Creativity Co.,Ltd
Address	:	No.10,Floor 9 ,Building 8,No.88,ShengbangStreet,High Tech Zone,Chengdu,Sichuan,China

Report on the submitted sample said to be

Sample name	:	Stainless steel water bottle
Model	:	Narrow mouth water bottle, Cup, Mug, Drinkware
Buyer	:	N/A
Manufacturer	:	Chengdu Ziliihood Cultural Creativity Co.,Ltd
Address	:	No.10,Floor 9 ,Building 8,No.88,ShengbangStreet,High Tech Zone,Chengdu,Sichuan,China
Testing laboratory	:	Shenzhen Huaxiang Testing Co., Ltd
Address	:	Building B2, Junfeng Zhongcheng Intelligent Manufacturing Innovation Park, Heping Community, Fuhai Street, Bao'an District, Shenzhen City, Guangdong Province
Sample received date	:	Feb. 17, 2025
Testing period	:	Feb. 17, 2025- Feb. 21, 2025
Test Result(s)	:	Please refer to the next pages

Prepared by(Test Engineer): Kevin Su

Approved(Manager): Amy Jiang

Shenzhen Huaxiang Testing Co., IMPARTIAL Product Safety * Approved *

Test Sample	Test Requested:	Conclusion
001	General Recognized As Safe (GRAS) specification for US FDA regulation on Stainless steel. - Total Chromium (Cr)	Pass
	As requested by client, according to the FDA 21 CFR 175.300, to determine the total extractives on the submitted sample - Chloroform-soluble extractives in Distilled water - Chloroform-soluble extractives in 8% Alcohol - Chloroform-soluble extractives in n-Heptane	Pass
002	As requested by client, according to the FDA 21 CFR 177.1520, to Determine the Total Extractives for the submitted sample - Melting point - Density - Extractable fraction in n-Hexane - Extractable fraction in Xylene	Pass
003	US FDA 21 CFR 177.2600: Rubber articles intended for repeated use. - Total extractives in Distilled water - Total extractives in n-Hexane	Pass

Test Result:

Sample Description

No.	Sample	Description
001	Stainless steel water bottle	Stainless steel
002	Stainless steel water bottle	PP
003	Stainless steel water bottle	Silica gel

1. FDA GRAS – Chromium content

Test method: To refer to US EPA 3050B:1996&US EPA 6010C:2007, the analysis was performed by ICP-OES.

Analyte	Result (%)	MDL (%)	Permissible Limit (%)
	001		
Chromium (Cr)	16.1	0.001	≥16

Note: MDL = Method Detection Limit

2. FDA total extractinves

Test method : 21 CFR 175.300.

Analyte	Test Condition	Result(mg/inch^2)	MDL (mg/inch^2)	Requirement (mg/inch^2)
		001		
Extractives in distilled water	120℉ 24h	ND	1.0	18
Extractives in 8% ethanol	70℉ 0.5h	ND	1.0	18
Extractives in n-Heptane	70℉ 0.5h	ND	1.0	18

Note: mg/inch^2 = milligram per square inch

N.D = Not Detected.

MDL=Method Detection Limit

3. US FDA 21 CFR 177.1520

Method: Solubility in boiling 4.2N HCl - US FDA 21 CFR 177.1520

Maximum extractable fraction in selected solvents - US FDA 21 CFR 177.1520

Test Item(s)	Unit	Result	MDL (mg/inch^2)	Limit
		002		
Melting Point	℃	176	/	160-180
Density	g/cm^3	0.903	/	0.880-0.913 g/cm^3
Extractable fraction in n-hexane	%	2.9	0.5	5.5
Soluble fraction in xylene	%	6.3	1.0	11.3

Note: g/cm^3 = grams per cubic cementer % = mass percent .

MDL=Method Detection Limit

4. FDA 21 CFR 177.2600 – Total extractives:

Method: To refer to the FDA 21 CFR 177.2600

Analyte	Condition	Result (mg/inch^2)	MDL (mg/inch^2)	Limit (mg/inch^2)
		003		
Total Extractives in Water	First 7 hours	<3	0.1	≤20
	Succeeding 2 hours	<0.1	0.1	≤1
Total Extractives in N-hexane	First 7 hours	15.2	0.1	≤175
	Succeeding 2 hours	3.56	0.1	≤4

Note: mg/ inch^2 =milligrams per square inch MDL= Method Detection Limit.

PICTURE OF SAMPLE

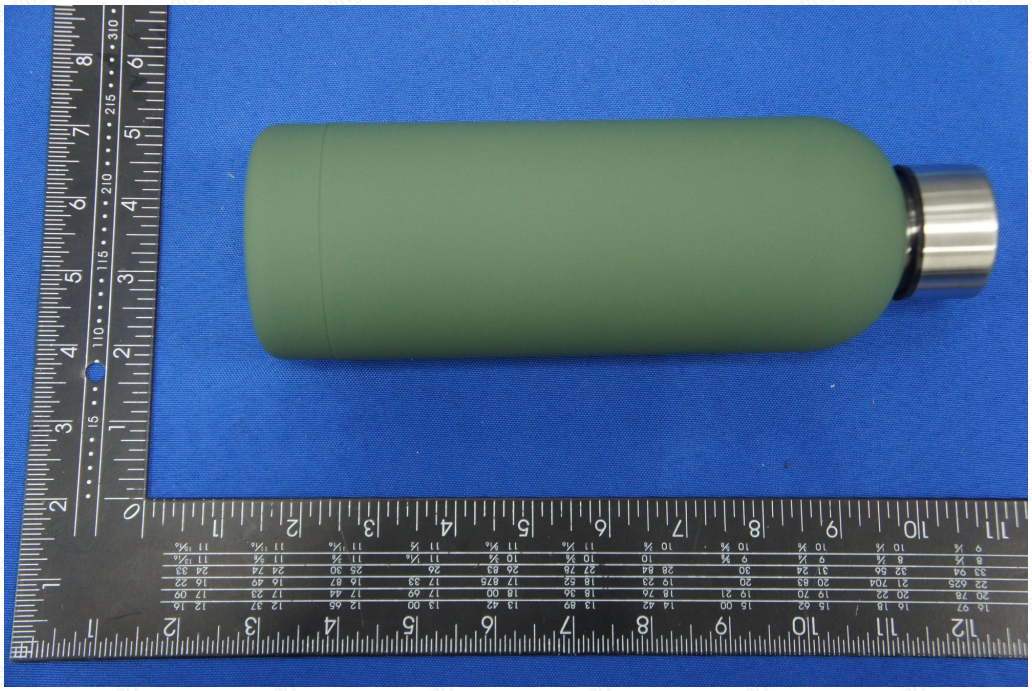
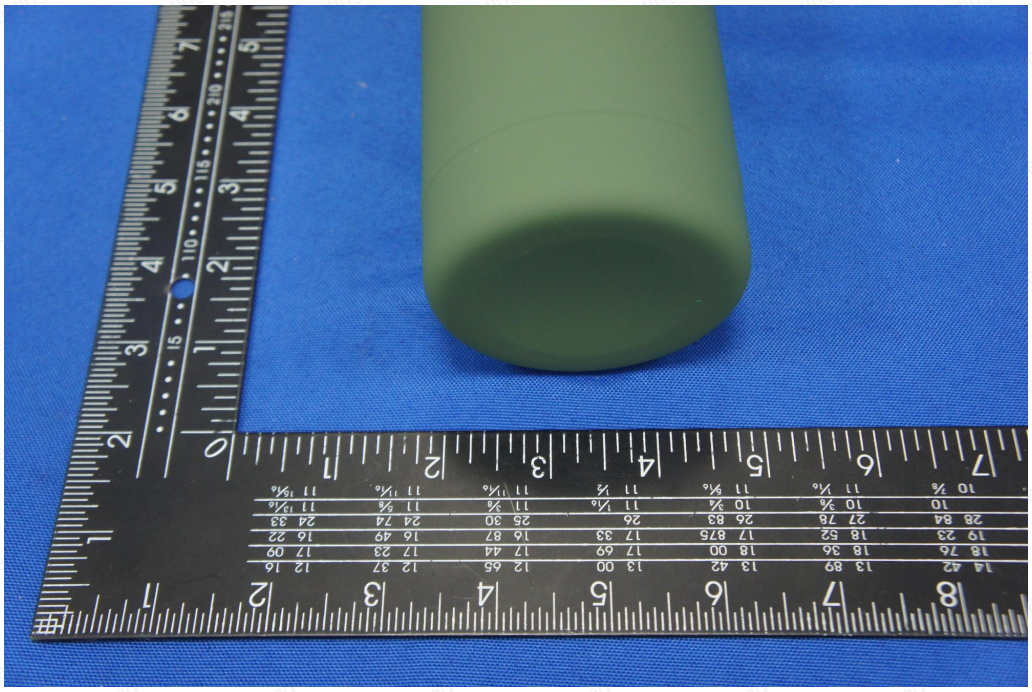


Photo 1



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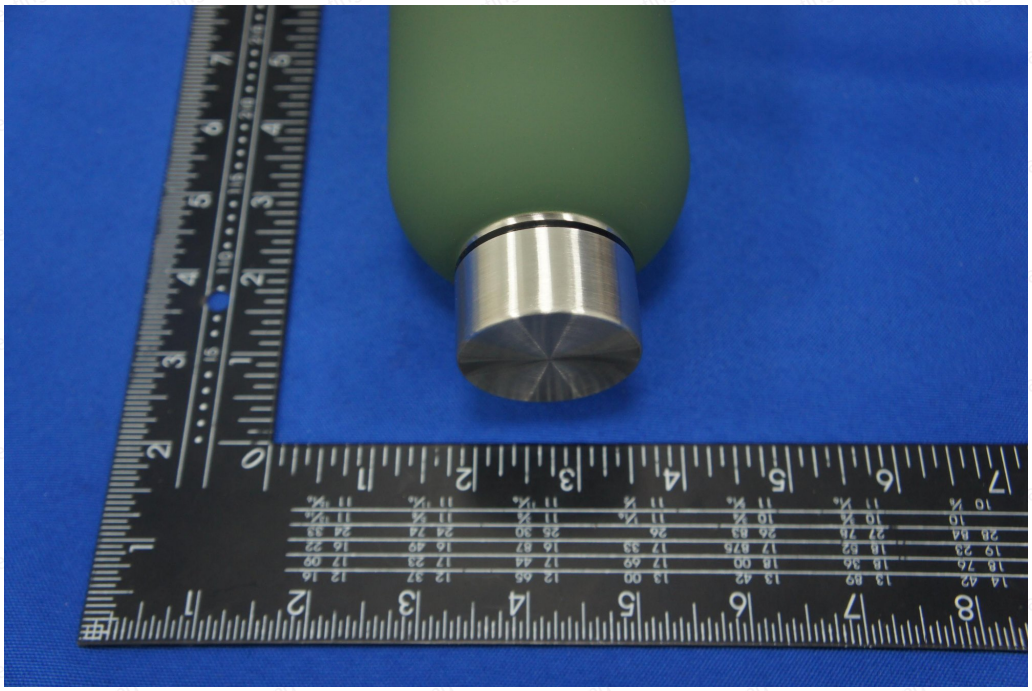

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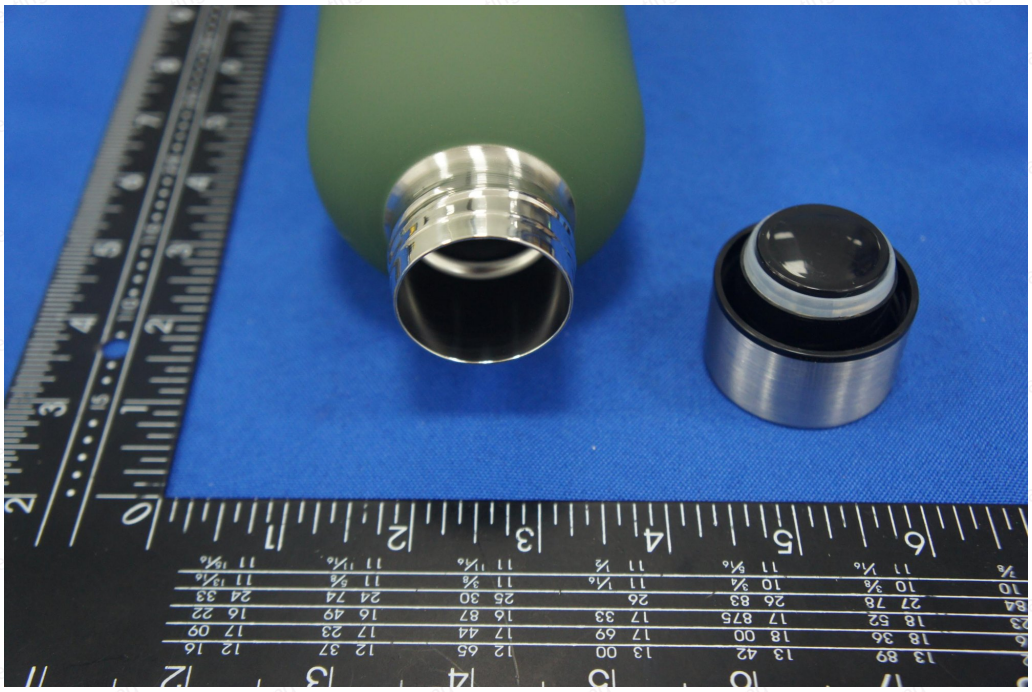

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

End of Report