

TEST REPORT

Reference No. : TRHZ1411879

Date : Dec.05, 2014

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Client : YISURE INDUSTRY AND TRADE CO.,LTD
Address : No.218 Cangchu Road, Jiangbei District Ningbo Zhejiang, China

The following merchandise was (were) submitted and identified by the client as:

Name of Product : 2 in 1 Oil& Vinegar Dispenser
Test Model : KDL-428
Model May Cover : KDL-413, KDL-412
Buyer: /
Sample Received : Nov.28, 2014
Test Period : Nov.28, 2014 - Dec.05, 2014
Test Request : Suitability for contact with foodstuffs according to LFGB section 30 and 31 with amendments, articles of regulation (EC) no.1935/2004
Test Method : Please refer to next pages
Test Result: Please refer to next pages
Conclusion : The submitted samples with test parts were found to comply with the respective requirement(s) for the tested item(s) as stated in the German Food& Feed Acts LFGB and Regulation (EC) No.1935/2004 (material in contact with food regulation).

Issued by:



TÜV NORD (Hangzhou)
Green Product Service Centre
Technical Manager

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TEST RESULTS:

1) Sensorial examination odor and taste test

Test method: Robinson's test with reference to DIN 10955:1983 (2004)

Test condition: 40°C 24hour

Test media: Distilled water

No. of panelist: 6

Test Items	Results	Maximum Permissible Limit
	KDL-428	
Sensorial examination odor (point scale)	0	2.5
Sensorial examination taste (point scale)	0	2.5

Scale evaluation:

- 0: No perceptible odor
- 1: Odor just perceptible (still difficult to define)
- 2: Moderate odor
- 3: Moderately strong odor
- 4: Strong odor

2) Extractable components

Test method: with reference to 61st Communication on testing of plastics in Bundesgesundheitsbl 46(2003)362.

Simulants	Condition	3 rd Results			Maximum Permissible Limits
		5#	11#	/	
3% Acetic Acid Aqueous Solution	at 40°C for 1hour	<0.1%	<0.1%		0.5%(w/w)
95% Ethanol Aqueous Solution	at 40°C for 1hour	<0.1%	<0.1%		0.5%(w/w)
Iso-octane	at 40°C for 24hours	<0.1%	<0.1%		0.5%(w/w)

3) Overall migration test

Test method: With reference to EN1186-1:2002 for selection of conditions and test methods;
EN1186-3:2002 aqueous food simulants by total immersion method;

Simulant used	Test condition	3 rd Overall Migration (mg/kg)				Maximum permissible Limit (mg/kg)
		1#-1	5#	6#	8#-1	
3% Acetic Acid	24 hours at 40°C	<6.0	<6.0	<6.0	<6.0	60
Isooctane	24 hours at 40°C	<6.0	<6.0	<6.0	<6.0	60
Olive oil	24 hours at 40°C	<6.0	<6.0	<6.0	<6.0	60

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Simulant used	Test condition	3 rd Overall Migration (mg/kg)				Maximum permissible Limit (mg/kg)
		8#-2	/			
3% Acetic Acid	24 hours at 40°C	<6.0				60
Isooctane	24 hours at 40°C	<6.0				60
Olive oil	24 hours at 40°C	<6.0				60

Simulant used	Test condition	3 rd Overall Migration (mg/dm ²)				Maximum permissible Limit (mg/dm ²)
		4#	7#	/		
3% Acetic Acid	24 hours at 40°C	<3.0	<3.0			10
Isooctane	24 hours at 40°C	<3.0	<3.0			10
Olive oil	24 hours at 40°C	<3.0	<3.0			10

4) Specific migration test of aromatic amine

Test method: Sample preparation with reference to EN 1186-1, -3, -9:2002, followed by analysis with reference to DIN 55610:1986.

Simulant used	Test condition	3 rd Result (mg/kg)				Maximum Permissible Limit(mg/kg)
		1#-1	4#	5#	6#	
3% acetic acid	1 hour at 70°C	n.d.	n.d.	n.d.	n.d.	n.d.

Simulant used	Test condition	Result (mg/kg)				Maximum Permissible Limit(mg/kg)
		7#	8#-1	8#-2	/	
3% acetic acid	1 hour at 70°C	n.d.	n.d.	n.d.		n.d.

5) Soluble heavy metals

Test method: Sample preparation in 3% Acetic acid at 40°C for 24 hours, followed by analysis using Inductively Coupled Argon Plasma Spectrometer.

Test Items	Test condition	3 rd Result (mg/kg)				Maximum Permissible Limit(mg/kg)
		1#	4#	5#	6#	
Soluble Barium	3% acetic acid for 24 hours at 40°C	<0.05	<0.05	<0.05	<0.05	1

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Test Items	Test condition	3 rd Result (mg/kg)				Maximum Permissible Limit(mg/kg)
		1#	4#	5#	6#	
Soluble Cobalt		<0.01	<0.01	<0.01	<0.01	0.05
Soluble Copper		<0.25	<0.25	<0.25	<0.25	5
Soluble Iron		<0.25	0.48	0.32	0.28	48
Soluble Lithium		<0.1	<0.1	<0.1	<0.1	0.6
Soluble Manganese		<0.1	<0.1	<0.1	<0.1	0.6
Soluble Zinc		<0.5	<0.5	<0.5	<0.5	25

Test Items	Test condition	3 rd Result (mg/kg)				Maximum Permissible Limit(mg/kg)
		7#	8#-1	8#-2	/	
Soluble Barium	3% acetic acid for 24 hours at 40°C	<0.05	<0.05	<0.05		1
Soluble Cobalt		<0.01	<0.01	<0.01		0.05
Soluble Copper		<0.25	<0.25	<0.25		5
Soluble Iron		1.05	<0.25	<0.25		48
Soluble Lithium		<0.1	<0.1	<0.1		0.6
Soluble Manganese		<0.1	<0.1	<0.1		0.6
Soluble Zinc		<0.5	<0.5	<0.5		25

6) Volatile organic matter

Test method: With reference to LFGB BfR Part B Part II Section XV, May 2003 and LFGB section 35 B80.301(EG).

Test condition: 70°C, 2hours

Test Items	Result (% w/w)			Maximum Permissible Limit (%)
	2#	/		
Volatile organic matter (VOM)	0.46			0.5

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Test condition: 90°C, 24 hours

Test Items	Result (% w/w)			Maximum Permissible Limit (mg/dm ²)
	4#	8#-1	8#-2	
Volatile organic matter (VOM)	<5	<5	<5	15

7) Peroxide Value

Test Method: With reference to European Pharmacopoeia, 2005 Appendix XF. Peroxide Value method A

Test Item	Limit	Result				
		2#	4#	6#	8#-1	8#-2
Peroxide Value	Absent	absent	absent	absent	absent	absent

8) Total Lead and Cadmium

Test Method: Acidic digestion, analysis was performed by ICP-OES.

Test Item	Unit	Limit	MDL	Result			
				1#	2#	4#	5#
Total Lead, Pb	mg/kg	40	5	n.d.	n.d.	n.d.	n.d.
Total Cadmium, Cd	mg/kg	20	2	n.d.	n.d.	n.d.	n.d.

Test Item	Unit	Limit	MDL	Result			
				6#	7#	8#-1	8#-2
Total Lead, Pb	mg/kg	40	2	n.d.	n.d.	n.d.	n.d.
Total Cadmium, Cd	mg/kg	20	2	n.d.	n.d.	n.d.	n.d.

9) Total Chromium, Vanadium and Zirconium

Test Method: Acid digestion, followed by analysis using Inductively Coupled Argon Plasma Spectrometer.

Test Item	Test Condition	Units	MDL	Limit	Result			
					5#	6#	/	
1 Total Chromium	Acid digestion, completely dissolved.	mg/kg	5	10	n.d.	n.d.		
2 Total Vanadium	Acid digestion, completely dissolved.	mg/kg	20	20	n.d.	n.d.		
3 Total Zirconium	Acid digestion, completely dissolved.	mg/kg	20	100	n.d.	n.d.		

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10) Specific migration of Bisphenol-A

Test Method: Sample preparation with reference to BS EN 13130-1:2004 with selection of simulants and condition, followed by analysis using High Performance Liquid Chromatography/ Mass Spectrometer (HPLC/MS).

Test Item	Test Condition	Units	MDL	Limit	3 rd Result			
					7#	/		
1 SML of BPA	3% Acetic Acid 40°C/ 24hours	mg/kg	0.2	0.6	n.d.			

11) Specific migration of Acrylonitrile for ABS materials

Test Method: with reference to EN 13130-1:2004 for selection of test method, analysis was performed by SPME-GC-MS.

Test Item	Test Condition	Units	MDL	Limit	3 rd Result			
					8#-1	8#-2	/	
1 SML of Acrylonitrile	3% Acetic Acid 40°C/ 24hours	mg/kg	0.01	0.01	n.d.			

12) Leachable Lead and Cadmium

Test Method: with reference to EN 1388-1:1995, analysis was performed by ICP-OES or AAS (atomic absorption spectrometer)

Parameter	Units	3 rd Results				Limits
		1	2	3	4	
Leaching Lead, Pb	mg/L	<0.1	<0.1	<0.1	<0.1	See table 1
Leaching Cadmium, Cd	mg/L	<0.01	<0.01	<0.01	<0.01	
Conclusion	Category Hollow-ware, Storage Container, PASS					

Table 1: Permissible limits for articles made from ceramics, glass ceramics with decorated inner surfaces, and for articles with enameled surfaces.

Parameters		Flatware		Hollow-ware	
		Lead, mg/dm ²	Cadmium, mg/dm ²	Lead, mg/L	Cadmium, mg/L
Tableware kitchen equipment	Made from ceramic, glass and glass ceramics	0.8*)	0.07*)	4.0*)	0.3*)
	Enameled	0.8	0.07	0.8	0.07

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Parameters		Flatware		Hollow-ware	
		Lead, mg/dm ²	Cadmium, mg/dm ²	Lead, mg/L	Cadmium, mg/L
Cooking& Baking utensils, receptacles also used as packaging materials	Made from ceramic, glass and glass ceramics	0.4	0.05	1.5*)	0.1*)
	Enameled	0.1	0.05	0.4	0.07
Samples for enameled container, part of equipment and water heater		0.1	0.05	-	-

* denotes the restricted limit was the same as European Restriction Limit No.1935/2004, 84/500/EEC, 2005/31/EC and its amendments.

13) Organotin Content

Test Method: with reference to DIN 38407-2001, analysis was perform by GC/MS.

Parameter		Units	Test Results	Limitation
			2#	
Organotin Content		---	---	---
1)	Monobutyltin, MBT	mg/Kg	<0.5	/
2)	Dibutyltin, DBT	mg/kg	<0.5	2.0mg/kg
3)	Tributyltin, TBT	mg/kg	<0.5	1.0mg/kg

Test Part Description:

- 1#, Plastic Part for Spraying Pump, mixed;
- 2#, Semi-transparent Silicone Rubber
- 3#, Transparent Glass Part;
- 4#, Transparent PS Part;
- 5#, Black PP Part;
- 6#, White PE Part;
- 7#, Transparent PC Part;
- 8#-1, White ABS Part;
- 8#-2, Black ABS Part.

***** To be continued *****

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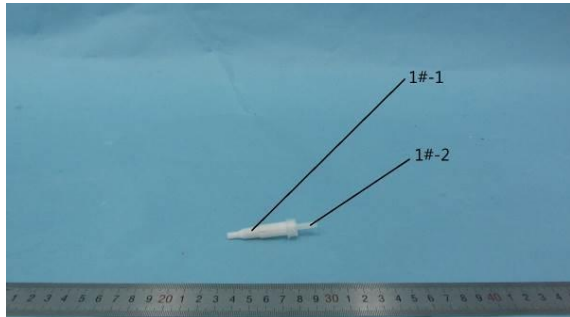
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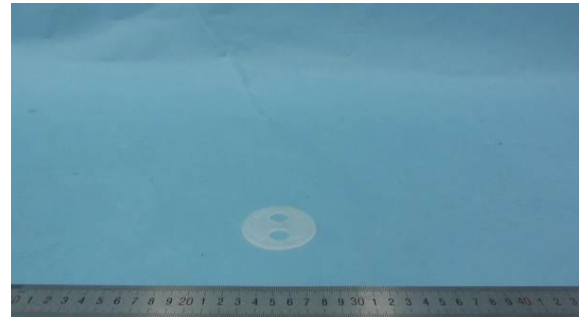
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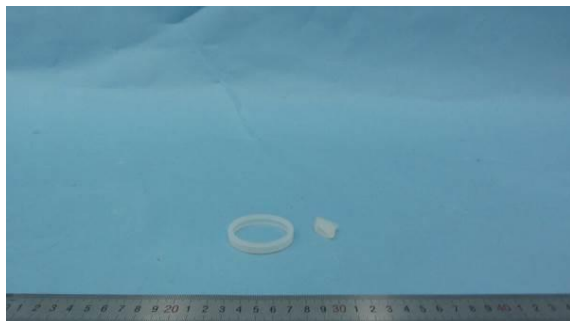
SAMPLE PHOTO



1#, Spraying Pump



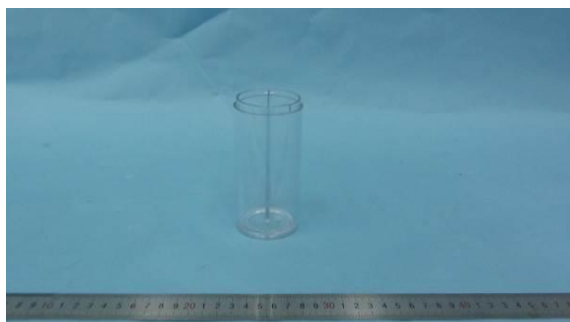
2#, Silicone Rubber



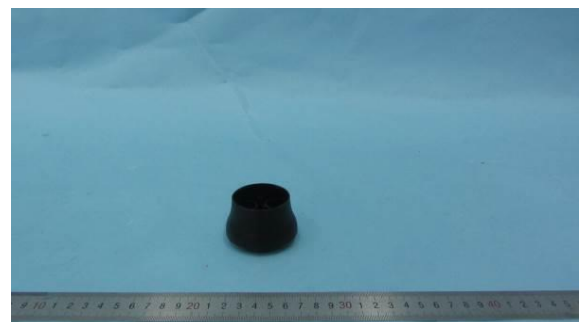
2#-1, Similar material as 2#



3#, Glass



4#, PS



5#, PP



6#, PE



7#, PC2

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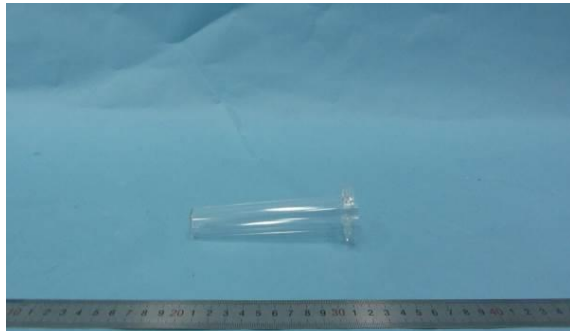
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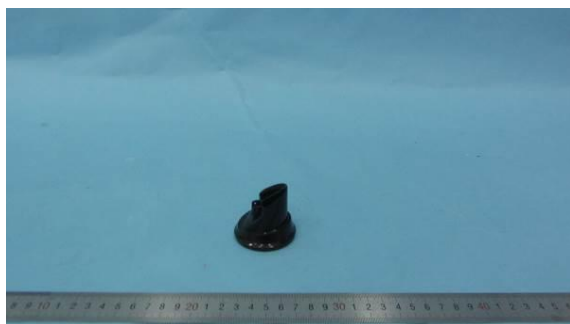
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7#-2, PC1



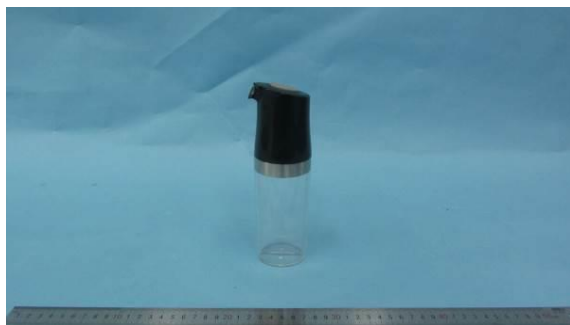
8#-1, ABS2



8#-2, ABS1



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