



SUBJECT Chemical Test

TEST LOCATION TÜV SÜD China

TÜV SÜD Products Testing (Shanghai) Co., Ltd.
B-3/4, No.1999 Du Hui Road, Minhang District
Shanghai 201108, P.R. China

CLIENT NAME

CLIENT ADDRESS

TEST PERIOD 11-May-2020~15-May-2020

RESULT SUMMARY

The tested items **complied with** European COMMISSION REGULATION (EU) No 10/2011 and its amendments on plastic materials and articles intended to come into contact with food.

- Overall migration test(3% Acetic acid,20% Ethanol) **PASS**
- Specific migration of Primary Aromatic Amine **PASS**
- Specific migration of Heavy metals **PASS**
- Vinyl Chloride Monomer (VCM) content **PASS**
- Specific migration of Phthalates(BBP,DBP, DEHP, DINP, DIDP, DEHA, DAP) **PASS**

Prepared By

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Report Drafter



(Leo Liu)
Authorized Signatory



Note: (1) General Terms & Conditions as mentioned overleaf. (2) The results relate only to the items tested.(3) The test report shall not be reproduced except in full without the written approval of the laboratory.(4) Without the agreement of the laboratory , the client is not authorized to use the test results for unapproved propaganda.

Chemical/Microbiology Laboratory:
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**RECEIPT DATE / TEST DATE**

11-May-2020/ 11-May-2020

**THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED
BY/ ON BEHALF OF THE CLIENTS AS**

Sample Name: Disposable vinyl gloves
 Sample Specification: PFM
 Batch No./Date: /
 Manufacturer: /

SAMPLE NO.	DESCRIPTION	PHOTOGRAPH
721654303	Transparent gloves	

TEST RESULT(S)

Note: The migration results in this report were tested and expressed based on single use articles

1. Overall Migration Test

- Test method: As specified in REGULATION (EU) No 10/2011 and its amendments; with reference to EN 1186: Part 5 (Test methods for overall migration into aqueous food stimulants by cell)
- Migration ratio(S/V): 10 dm²/L

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]
3% Acetic acid	70°C for 2 hours	0.850	10
20% Ethanol	70°C for 2 hours	1.35	10

2. Specific migration of Primary Aromatic Amine

- Test method: With reference to EN 13130-1:2004, followed by Kunststoffe im Lebensmittelverkehr, Book 2, Teil B II,XXI
- Test condition: 3% Acetic acid,40°C for 2 hours
- Migration ratio(S/V): 6 dm²/L

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]
Specific migration of Primary Aromatic Amine	<0.01	0.01



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3. Specific Migration: Heavy metal – Al, Ba, Co, Cu, Fe, Li, Mn, Zn, Ni

- Test method: As specified in REGULATION (EU) No 10/2011 and its amendments; with reference to EN13130-1:2004, followed by ICP-MS.
- Test condition: 3% Acetic acid, 40°C for 2 hours
- Migration ratio(S/V): 6 dm²/L

Test Item(s)	Result(s) [mg/kg]	Limit [mg/kg]
Aluminum	<0.1	1
Barium	<0.1	1
Cobalt	<0.05	0.05
Copper	<0.5	5
Iron	<1.0	48
Lithium	<0.1	0.6
Manganese	<0.05	0.6
Zinc	<1.0	5
Nickel	<0.002	0.02

4. Vinyl Chloride Monomer (VCM) content

- Test method: With reference to EN ISO 6401:2008 Plastics - Poly(vinyl chloride) - Determination of residual vinyl chloride monomer - Gas-chromatographic method

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]
Vinyl Chloride Monomer (VCM) content	<0.1	1

5. Specific migration of Phthalates

- Test method: In according with REGULATION (EU) No 10/2011; With reference to EN 13130-1:2004, followed by GC-MS analysis
- Test condition: 20% Ethanol, 40°C for 2 hours
- Migration ratio(S/V): 6 dm²/L

Test Item(s)	CAS No.	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]
Benzylbutyl Phthalate(BBP)	85-68-7	<0.25	30
Dibutyl Phthalate(DBP)	84-74-2	<0.2	0.3
Di(2-ethylhexyl) Phthalate(DEHP)	117-81-7	<0.25	1.5
Diisononyl Phthalate(DINP)	68515-48-0	<1.00	9
Diisodecyl Phthalate(DIDP)	26761-40-0	<1.00	
Bis(2-ethylhexyl) adipate(DEHA)	103-23-1	<0.1	18
Diallyl phthalate(DAP)	131-17-9	ND	Not Detected (DL:0.01)

- Note:
1. DL denotes Detection Limit
 2. ND denotes Not Detected and less than detection Limit

Note: This report is for internal use only such as internal scientific research, education, quality control, product R&D.

-END OF THE TEST REPORT-

