

Report No.: 180255706a 001

Page 1 of 6

Client: NINGBO ARTUS TRADE CO., LTD.

Contact Information: Third floor, No. 388 Mingguang Road, Shounan Street Yinzhou District,
Ningbo, Zhe Jiang Province

**Identification/
Model No(s):** Dutch oven with enamel coating
AY4611

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2023-01-11

Testing Period: 2023-01-11 to 2023-01-17

Place of testing: Chemical laboratory Ningbo

Delivery condition: Apparent good, Samples tested as received

Test Specification:

Performed parameter(s) for the compliance with the following regulations
concerning materials in contact with foodstuff :
- German §31 LFGB (Lebensmittel-, Bedarfsgegenstände- und
Futtermittelgesetzbuch)

Test conclusion:

PASS

Other information:

Reference Model No: AY4621 / AY4631 / AY4641 / AY4661 / AY0466

For and on behalf of
TÜV Rheinland/CCIC (Ningbo) Co., Ltd.



2023-01-19

Chris W. W. Wang / Assistant Manager

Date

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.

This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

"Decision Rule" document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

Test Report No.: 180255706a 001

Page 2 of 6

Material List:

Item: Dutch oven with enamel coating
AY4611

Material No.	Material	Color	Location
1	Cast iron cooking ware with enamel coating	Black	Refer to photo

Test Report No.: 180255706a 001

Page 3 of 6

Overall Results:

Test No.	Tested item:	Conclusion
1	Sensorial Examination	PASS
2	Specific Migration of metals, Metal-release from Enamelled Ware	PASS

Test Report No.: 180255706a 001

Page 4 of 6

1. Sensorial examination

Test Method: It is examined to the extent of food simulant being used, which comes into contact with the product, undergoes detectable changes in taste and smell.

For this purpose, the food simulant was stored in the product under the below mentioned time and temperature. Afterwards, the food simulant was examined by an appropriate number of tasters with regard to any divergence in smell and taste. Another test sample, which was used as a reference, was treated by the same way except that it had no contact with the product to be tested.

Before testing, the product had been cleaned according to the product's instruction manual or in the absence of such manual, by normal household cleaning.

The test is carried out on the basis of DIN 10955:2004 by paired comparison test:

Evaluation scheme:

- 0 = No discernible deviation
- 1 = Barely discernible deviation
- 2 = Weak deviation
- 3 = Clear deviation
- 4 = Strong deviation
- Limit: 3 (failed)

The following food simulant and condition were applied:

Food simulant	Test duration / Temperature
Water	100°C for 2 hours

Test No.:	T001
Material No.:	1
Parameter	Result
Transfer of Smell:	0
Transfer of Taste:	0

Test Report No.: 180255706a 001

Page 5 of 6

2. Specific Migration of metals, Metal-release from Enamelled Ware

Test: The migratory behaviour is examined according to ISO 4531: 2022. The
 Method: determination of amounts of metals that were released is done via ICP-MS.
 Limit: ISO 4531: 2022
 The following food simulant and condition was applied:

Food simulant	Test duration / Temperature
3% Acetic acid	95°C for 2 hours

Results 3rd Migration:

Test No.:	T001			
Sample No.:	1			
Migration Ratio:	882 / 4.41 ml/dm ²			
Parameter	Unit	RL	Result	Limit
Aluminium	mg/kg	0.05	0.88	1
Silver	mg/kg	0.05	< 0.05	0.08
Arsenic	mg/kg	0.002	< 0.002	0.002
Barium	mg/kg	0.05	< 0.05	1.2
Cadmium	mg/kg	0.002	< 0.002	0.005
Cobalt	mg/kg	0.05	< 0.05	0.1
Chromium	mg/kg	0.05	< 0.05	0.25
Copper	mg/kg	0.05	0.079	4
Lithium	mg/kg	0.05	< 0.05	0.48
Manganese	mg/kg	0.05	0.308	1.8
Molybdenum	mg/kg	0.05	< 0.05	0.12
Nickel	mg/kg	0.05	< 0.05	0.14
Lead	mg/kg	0.005	< 0.005	0.01
Antimony	mg/kg	0.02	< 0.02	0.04
Vanadium	mg/kg	0.005	< 0.005	0.01
Zinc	mg/kg	0.05	< 0.05	5

Abbreviations: RL = Reporting Limit
 n.d. = Not detected
 mg/kg = Milligram per kilogram
 < = Less than

Sample Photos



Sample 1



Above samples which are by client's declaration made of same material as tested one.

- END -

