

conclusion:

**PASS** 

Test Report No.: 244461040e 001 Page 1 of 26

XIAMEN MODERN DELTA LTD.

Client: Jinxing Road No.61-69, Hubin North Road, Xiamen 361012, P.R.China

Test item(s): Tritan 300mL straw water bottle

Identification / Model No(s): ED-105

Sample obtaining method: Sending by customer

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2022-11-02

**Testing Period:** No

Chemical laboratory Shanghai, Toys laboratory Shanghai, Place of testing:

Test specification:

Performed parameter(s) for the compliance with the following regulations concerning PASS materials in contact with foodstuff:

Regulation (EC) No 1935/2004

Volatile compounds content **PASS** N-Nitrosamines and N-Nitrosatables substances release **PASS** Formaldehyde release **PASS** Color Fastness **PASS** EN 14350:2020 Child care articles - Drinking equipment - Safety requirements and **PASS** test methods -Mechanical requirements and tests EN 14350:2020 Child care articles - Drinking equipment - Safety requirements and

test methods -Clause 8.6 Migration of certain elements

## Other Information:

Country of Origin: China

Report Reference No: 244461040a 001 & 244461040d 001

For and on behalf of TÜV Rheinland (Shanghai) Co., Ltd.

2022-12-12 Amy Zhao / Technical Manager Neo Yang / Assistant Manager 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.: 244461040e 001 Page 2 of 26

Indication: Food contact

**Product:** Commodity, contact with foodstuff

# **Description of test specimen**

**Item** 

5 Tritan 300mL straw water bottle

### 1. Material List:

Sample No.	Material	Color	Location	Refer
5	Whole Product	Multicolor	Tritan 300mL straw water bottle	
5A	Plastic, Tritan	Transparent	Body	244461040a 001 1A
5B	Plastic, PP	Grey	Screw Cap	244461040a 001 1B
5C	Silicone	Translucent	Straw/Seal ring	244461040d 001 4D
5D	Plastic	Dk. blue	Top lid	
5E	Plastic	Red	Handle	
5F	Plastic	Lt. blue	Top lid	
5G	Plastic	Orange	Handle	
5H	Plastic	Lt. purple	Top lid	
51	Plastic	Brown	Handle	
5J	Plastic	Pink	Top lid	
5K	Plastic	Dk. purple	Handle	
5L	Plastic	Green	Top lid	
5M	Plastic	Lt. purple	Handle	

# Remark:

According to client's information 5A and 5B are produced of same material of 244461040a 001 1A and 1B. Tests results refer to 244461040a 001 as indicated.

According to client's information 5C is produced of same material of 244461040d 001 4D. Tests results refer to 244461040d 001 as indicated.



**Test Report No.:** 244461040e 001 Page 3 of 26

# 2. Overall Results:

Test No.	Tested Item	Conclusion
1	Sensorial examination	Pass
2	Global Migration	Pass
3	Global Migration from Silicone	Pass
4	Colourfastness	Pass
5	Specific Migration of Metals	Pass
6	Specific Migration of 2,2,4,4-tetramethylcyclobutane-1,3-diol	Pass
7	Volatile compounds content	Pass
8	N-Nitrosamines and N-Nitrosatables substances release	Pass
9	Formaldehyde release	Pass
10	Color Fastness	Pass
11	EN 14350:2020 Child care articles – Drinking equipment - Safety requirements and test methods - Mechanical requirements and tests	Pass
12	EN 14350:2020 Child care articles - Drinking equipment - Safety requirements and test methods - Clause 8.6 Migration of certain elements	Pass



**Test Report No.: 244461040e 001** Page 4 of 26

### 3. Results

### 3.1 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 ISO 13302 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 simulants and conditions were applied:

Food simulant	Test duration / Temperature	
Water	2 hour(s) / 70 °C	

Test No.:	1^
Sample No.:	5A
Parameter:	Result
Transfer of Smell:	0

Test No.:	2^	
Sample No.:	5B	
Parameter:	Result	
Transfer of Smell:	0	
Transfer of Taste:	0	



**Test Report No.:** 244461040e 001 Page 5 of 26

Test No.:	3^^
Sample No.:	5C
Parameter:	Result
Transfer of Smell:	0
Transfer of Taste:	0



**Test Report No.:** 244461040e 001 Page 6 of 26

# 3.2 Global Migration

Test method: The migratory behaviour is examined with reference to Commission Regulation (EU) No

10/2011 and its amendments.

Limit: With reference to Commission Regulation (EU) No 10/2011 and its amendments

The following food simulants and conditions were applied:

Food simulant	Test duration / Temperature
Acetic acid 3 %	2 hour(s) / 70 °C
Ethanol 50 %	2 hour(s) / 70 °C

Test No.:	1^					
Sample No.:	5A					
Migration ratio:	160 ml / 1.8 dm <sup>2</sup>					
Parameter	Unit RL Migration Migration Result Result					
Acetic acid 3 %	mg/dm²	2	<rl< td=""><td><rl< td=""><td><rl< td=""><td>10</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>10</td></rl<></td></rl<>	<rl< td=""><td>10</td></rl<>	10
Ethanol 50 %	mg/dm²	$mg/dm^2$ 2 <rl 10<="" <rl="" td=""></rl>				

Test No.:		2^				
Sample No.:		5B				
Migration ratio:	1000 ml / 6 dm <sup>2</sup>					
Parameter	Unit RL Migration Migration Algorithm Result Result					
Acetic acid 3 %	mg/dm²	2	<rl< td=""><td><rl< td=""><td><rl< td=""><td>10</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>10</td></rl<></td></rl<>	<rl< td=""><td>10</td></rl<>	10
Ethanol 50 %	mg/dm²					

### Abbreviations:

RL = Reporting Limit

mg/dm<sup>2</sup> = Milligram per square decimetre

ml/dm<sup>2</sup> = Mililitre per square decimetre

< = Less than

### Remark:

- \*1 Stability test is included in this test parameter.
- \*2 The migration results do not show increase between subsequent tests and therefore it meets the stability requirement.

TÜV Rheinland (Shanghai) Co., Ltd. Shanghai TÜV Rheinland Building, No. 177, Lane 777, West Guangzhong Road, Jing'an District, Shanghai 200072, P.R. China



**Test Report No.:** 244461040e 001 Page 7 of 26

# 3.3 Global Migration from Silicone

Test method: The migratory behaviour is examined with reference to Chapter V, Article 18 of

Commission regulation 10/2011 and its amendments. Deviating to the regulations the

following tests were performed as orientating single tests.

Limit: Resolution AP (2004) 5 on silicones used for food contact applications

The following food simulants and conditions were applied:

Food simulant	Test duration / Temperature
Acetic acid 3 %	2 hour(s) / 70 °C
Ethanol 50 %	2 hour(s) / 70 °C

Test No.:	1^^			
Sample No.:		5C		
Parameter	Unit	Result	Limit	
Acetic acid 3 %	mg/dm²	5	10	
Ethanol 50 %	mg/dm²	4	10	

## Abbreviations:

mg/dm<sup>2</sup> = Milligram per square decimetre

< = Less than

TÜV Rheinland (Shanghai) Co., Ltd. Shanghai TÜV Rheinland Building, No. 177, Lane 777, West Guangzhong Road, Jing'an District, Shanghai 200072, P.R. China



**Test Report No.:** 244461040e 001 Page 8 of 26

### 3.4 Colourfastness

Test method: Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact

with food, Appendix III

Limit: Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact

with food - No transfer of colorants to foodstuffs is permitted

Test No.:	1^
Sample No.:	5B
Parameter Colourfastness to	Difference between blank and filter paper contacted with sample
Water	No
Acetic acid 3 %	No
Ethanol 50 %	No



**Test Report No.:** 244461040e 001 Page 9 of 26

# 3.5 Specific Migration of Metals

Test method: The migratory behaviour was examined with reference to Commission Regulation (EU)

No. 10/2011 and its amendments. Determination by ICP-MS.

Limit: With reference to Commission Regulation (EU) No 10/2011 and its amendments

The following food simulant and condition were applied:

Food simulant	Test duration / Temperature
Acetic acid 3 %	2 hour(s) / 70 °C

Test No.:	1^						
Material No.:	5A						
Migration ratio:			160	ml / 1.8 dm <sup>2</sup>			
Parameter	Unit	RL	1 <sup>st</sup> Migration Result	2 <sup>nd</sup> Migration Result	3 <sup>rd</sup> Migration Result	Limit	
Aluminium	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<>	<rl< td=""><td>1</td></rl<>	1	
Antimony	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.04</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.04</td></rl<></td></rl<>	<rl< td=""><td>0.04</td></rl<>	0.04	
Arsenic	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.	
Barium	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<>	<rl< td=""><td>1</td></rl<>	1	
Cadmium	mg/kg	0.002	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.	
Total Chromium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.	
Cobalt	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<>	<rl< td=""><td>0.05</td></rl<>	0.05	
Copper	mg/kg	0.5	<rl< td=""><td><rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<>	<rl< td=""><td>5</td></rl<>	5	
Iron	mg/kg	5	<rl< td=""><td><rl< td=""><td><rl< td=""><td>48</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>48</td></rl<></td></rl<>	<rl< td=""><td>48</td></rl<>	48	
Lead	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.	
Lithium	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<>	<rl< td=""><td>0.6</td></rl<>	0.6	
Manganese	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<>	<rl< td=""><td>0.6</td></rl<>	0.6	
Mercury	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.	
Nickel	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.02</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.02</td></rl<></td></rl<>	<rl< td=""><td>0.02</td></rl<>	0.02	
Zinc	mg/kg	1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<>	<rl< td=""><td>5</td></rl<>	5	
Europium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>		
Gadolinium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>		
Lanthanum	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>		
Terbium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>		
Sum of Lanthanide substances	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<>	<rl< td=""><td>0.05</td></rl<>	0.05	



Test Report No.: 244461040e 001

Page	10	of	26
------	----	----	----

Test No.:	2^							
Material No.:	5B							
Migration ratio:			100	00 ml / 6 dm <sup>2</sup>				
Parameter	Unit	RL	1 <sup>st</sup> Migration Result	2 <sup>nd</sup> Migration Result	3 <sup>rd</sup> Migration Result	Limit		
Aluminium	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<>	<rl< td=""><td>1</td></rl<>	1		
Antimony	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.04</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.04</td></rl<></td></rl<>	<rl< td=""><td>0.04</td></rl<>	0.04		
Arsenic	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.		
Barium	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>1</td></rl<></td></rl<>	<rl< td=""><td>1</td></rl<>	1		
Cadmium	mg/kg	0.002	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.		
Total Chromium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.		
Cobalt	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<>	<rl< td=""><td>0.05</td></rl<>	0.05		
Copper	mg/kg	0.5	<rl< td=""><td><rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<>	<rl< td=""><td>5</td></rl<>	5		
Iron	mg/kg	5	<rl< td=""><td><rl< td=""><td><rl< td=""><td>48</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>48</td></rl<></td></rl<>	<rl< td=""><td>48</td></rl<>	48		
Lead	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.		
Lithium	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<>	<rl< td=""><td>0.6</td></rl<>	0.6		
Manganese	mg/kg	0.1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.6</td></rl<></td></rl<>	<rl< td=""><td>0.6</td></rl<>	0.6		
Mercury	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>n.d.</td></rl<></td></rl<>	<rl< td=""><td>n.d.</td></rl<>	n.d.		
Nickel	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.02</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.02</td></rl<></td></rl<>	<rl< td=""><td>0.02</td></rl<>	0.02		
Zinc	mg/kg	1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<>	<rl< td=""><td>5</td></rl<>	5		
Europium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>			
Gadolinium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>			
Lanthanum	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>			
Terbium	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td></td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td></td></rl<></td></rl<>	<rl< td=""><td></td></rl<>			
Sum of Lanthanide substances	mg/kg	0.01	<rl< td=""><td><rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>0.05</td></rl<></td></rl<>	<rl< td=""><td>0.05</td></rl<>	0.05		

### Abbreviations:

RL = Reporting limit

n.d. = Not detected

mg/kg = Milligram per kilogram

ml/dm<sup>2</sup> = Mililitre per square decimetre

< = Less than

# Remark:

\*1 Single component with an amount below reporting limit was not considered by the calculation of the sum. In the case of all lanthanide substances europium, gadolinium, lanthanum and terbium were not detected, the result is stated n.d.



Test Report No.: 244461040e 001 Page 11 of 26

- \*2 Stability test is included in this test parameter.
- \*3 The migration results do not show increase between subsequent tests and therefore it meets the stability requirement.



**Test Report No.: 244461040e 001** Page 12 of 26

### 3.6 Specific Migration of 2,2,4,4-tetramethylcyclobutane-1,3-diol

Test method: The migratory behavior was examined with reference to Commission Regulation (EU)

No. 10/2011 and its amendments. Determination by GC-MS.

Limit: With reference to Commission Regulation (EU) No 10/2011 and its amendments

The following food simulant and condition were applied:

Food simulant	Test duration / Temperature
Ethanol 50 %	2 hour(s) / 70 °C

Test No.:		1^					
Sample No.:		5A					
Migration ratio:			22	0 ml / 1.93 dm	1 <sup>2</sup>		
Parameter	CAS No.	Unit	RL	1 <sup>st</sup> Migration Result	2 <sup>nd</sup> Migration Result	3 <sup>rd</sup> Migration Result	Limit
2,2,4,4-tetramethyl cyclobutane-1,3-diol	3010-96-6	mg/kg	1	<rl< td=""><td><rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<></td></rl<>	<rl< td=""><td><rl< td=""><td>5</td></rl<></td></rl<>	<rl< td=""><td>5</td></rl<>	5

# Abbreviations:

RL = Reporting Limit

mg/kg = Milligram per kilogramm

ml/dm<sup>2</sup> = Mililitre per square decimetre

< = Less than

### Remark:

- \*1 Stability test is included in this test parameter.
- \*2 The migration results do not show increase between subsequent tests and therefore it meets the stability requirement.

Web: www tuv.com

Tel.: +86 21 6108 1188 Fax: +86 21 6108 1099 Mail: info@shg.chn.tuv.com



**Test Report No.:** 244461040e 001 Page 13 of 26

# 3.7 Volatile compounds content

**Test Method:** EN 14350:2020 Clause 8.4

### Test result:

Test No.:	1^^				
Material No.:	5C				
Parameter	Unit RL Result Limit				
Volatile compounds content#	% 0.1 0.18 0.5				

**Abbreviation:** < = Less than

RL = Reporting Limit

% = percent

#### Remark:

# Results for volatile compounds content have been adjusted with analytical tolerances of 0.3% if the condition stated in EN 14350:2020 clause 8.4 is fulfilled.

Mail: info@shg.chn.tuv.com

Web: www.tuv.com



**Test Report No.: 244461040e 001**Page 14 of 26

### 3.8 N-Nitrosamines and N-Nitrosatables substances release

Test method: EN 14350:2020 Clause 8.5; with reference to EN 12868:2017

### Test result:

Test No.		1^^						
Material No.					50	5C		
			Migr	ratable N-Nitros	amines	Migi	atable N-Nitro Substances	
Test Parameter	CAS No.	Unit	RL	Requirement	Test result	RL	Requirement	Test result
NDMA	62-75-9	mg/kg	0.001		< RL	0.001		< RL
NDEA	55-18-5	mg/kg	0.001		< RL	0.001		< RL
NDPA	621-64-7	mg/kg	0.001		< RL	0.001		< RL
NDiBA	997-95-5	mg/kg	0.001		< RL	0.001		< RL
NDBA	924-16-3	mg/kg	0.001		< RL	0.001		< RL
NPIP	100-75-4	mg/kg	0.001		< RL	0.001		< RL
NPYR	930-55-2	mg/kg	0.001		< RL	0.001		< RL
NMOR	59-89-2	mg/kg	0.001		< RL	0.001		< RL
NEPhA	612-64-6	mg/kg	0.005		< RL	0.005		< RL
NMPhA	614-00-6	mg/kg	0.005		< RL	0.005		< RL
NDiNA	1207995-62-7	mg/kg	0.005		< RL	0.005		< RL
NDBzA	5336-53-8	mg/kg	0.005		< RL	0.005		< RL
Total#		mg/kg	0.005	0.01	< RL	0.005	0.1	< RL
Conclusion				Pass			Pass	

**Abbreviation:** < = Less than

RL = Reporting Limit

mg/kg = milligram per kilogram



**Test Report No.:** 244461040e 001 Page 15 of 26

### Remark:

\* List of Migratable N-Nitrosamines and Migratable N-Nitrosatable Substances.

Parameter	Abbreviation
N-nitrosodimethylamine	NDMA
N-nitrosodiethylamine	NDEA
N-nitrosodipropylamine	NDPA
N-nitrosodiisobutylamine	NDiBA
N-nitrosodibutylamine	NDBA
N-nitrosopiperidine	NPIP
N-nitrosopyrrolidine	NPYR
N-nitrosomorpholine	NMOR
N-nitrosoethylphenylamine	NEPhA
N-nitrosomethylphenylamine	NMPhA
N-nitrosodiisononylamine	NDiNA
N-nitrosodibenzylamine	NDBzA

- \*\* Single components with an amount of less than the detection limit were not considered by the calculation of the sum. In the case of all compounds were not detected, the results is stated <RL.
- # Results for total N-nitrosatables substances or N-nitrosamines have been adjusted with analytical tolerances if the condition stated in EN 12868:2017 clause 11.1 is fulfilled:
  - Analytical tolerance for the total quantity of N-nitrosamines: 0.01 mg/kg.
  - Analytical tolerance for the total quantity of N-nitrosatable substances: 0.1 mg/kg.



**Test Report No.:** 244461040e 001 Page 16 of 26

# 3.9 Formaldehyde release

Test Method: EN 14350:2020 Clause 8.7; with reference to EN 71-11:2005

Test Result:

				Test No.	1^^
				Material No.:	5C
Parameter	CAS No.	Unit	RL	Requirement	Result
Formaldehyde	50-00-0	mg/l	0.2	0.5	< RL
Conclusion					PASS

**Abbreviation:** < = Less than

RL = Reporting Limit mg/l = milligram per liter

Web: www tuv.com

Tel.: +86 21 6108 1188 Fax: +86 21 6108 1099 Mail: info@shg.chn.tuv.com



**Test Report No.:** 244461040e 001 Page 17 of 26

### 3.10 Color Fastness

**Test Method:** EN 14350:2020 Clause 8.8

**Test result** 

Test No.:	1^	2
Material No.:	5B	5D
Parameter Colourfastness to	Difference between blank and filter paper contacted with sample	Difference between blank and filter paper contacted with sample
3% Acetic acid	No	No
Coconut fat	No	No
Test No.:	3	4
Material No.:	5E	5F
Parameter Colourfastness to	Difference between blank and filter paper contacted with sample	Difference between blank and filter paper contacted with sample
3% Acetic acid	No	No
Coconut fat	No	No
Test No.:	5	6
Material No.:	5G	5H
Parameter Colourfastness to	Difference between blank and filter paper contacted with sample	Difference between blank and filter paper contacted with sample
3% Acetic acid	No	No
Coconut fat	No	No
Test No.:	7	8
Material No.:	51	5J
Parameter Colourfastness to	Difference between blank and filter paper contacted with sample	Difference between blank and filter paper contacted with sample
3% Acetic acid	No	No
Coconut fat	No	No



Test Report No.: 244461040e 001

)	
_	
between ilter paper	

Page 18 of 26

Test No.:	9	10		
Material No.:	5K	5L		
Parameter Colourfastness to	Difference between blank and filter paper contacted with sample	Difference between blank and filter paper contacted with sample		
3% Acetic acid	No	No		
Coconut fat	No	No		

Test No.:	11			
Material No.:	5M			
Parameter Colourfastness to	Difference between blank and filter paper contacted with sample			
3% Acetic acid	No			
Coconut fat	No			

<sup>^</sup> Test results refer to 244461040a 001

Web: www tuv.com

<sup>^^</sup> Test results refer to 244461040d 001



**Test Report No.: 244461040e 001**Page 19 of 26

# 4. EN 14350:2020 Child care articles - Drinking equipment - Safety requirements and test methods - Mechanical requirements and tests

### **Test Result:**

Test No:	T001						
Material No:	5						
6 Construction and mechanical properties - General and sample preparation							
6.4 Boiling	PASS						
7 Construction and mechanical requirements and tests							
7.2 Decoration, inscription and decals	PASS						
7.3 Visual and tactile examination	PASS						
7.4 Small parts	PASS						
7.6 Requirements and tests for containers	PASS						
7.7 Requirements and tests for drinking accessories	PASS						
7.8 Protective covers	PASS						
7.9 Handles and clips	PASS						
7.11 Protruding parts	PASS						
9 Consumer packaging	PASS						
10 Product information							
10.1 General	PASS						
10.2 Purchase information	PASS						
10.3 Warnings	PASS						
10.4 Instructions for use	PASS						

The clause and/or sub-clause would be indicated only in the test report whichever applicable. The comprehensive result report is available upon request.



**Test Report No.:** 244461040e 001 Page 20 of 26

# 5. EN 14350:2020 Child care articles - Drinking equipment - Safety requirements and test methods - Clause 8.6 Migration of certain elements

Test Method: EN 14350:2020 Clause 8.6, with reference to EN 71-3:2019

#### **Test Result:**

		T001	T002	T003		
		5D	5F	5H		
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	6000	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	120	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	10	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	4000	< RL	< RL	< RL
Boron (B)	mg/kg	10	3200	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	3.6	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	100	100 < RL		< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.002#	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	2.8	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	1660	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	5.0	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	600	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	20	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	56	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	100	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	12000	< RL	< RL	< RL
Tin (Sn)	mg/kg	0.5	40000	< RL	< RL	< RL
Organic Tin^	mg/kg	0.2	2.5	-	-	-
Zinc (Zn)	mg/kg	10	10000	< RL	< RL	< RL

Abbreviation: < less than

RL = Reporting Limit

mg/kg denotes milligram per kilogram

- denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (0.72 mg/kg)
- # According to EN 14350:2020, the limit of Cr(VI) is 0.002 mg/kg. However, the technical specificities were considered and whenever the Cr(VI) level measured in the sample is below the Limit of Quantification of the valid version of EN 71-3, the sample is to be considered passed.



**Test Report No.: 244461040e 001**Page 21 of 26

#### **Test Result:**

		T004	T005	T006		
		5J	5L	5B		
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	6000	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	120	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	10	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	4000	< RL	< RL	< RL
Boron (B)	mg/kg	10	3200	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	3.6	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	100	< RL	< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.002#	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	2.8	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	1660	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	5.0	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	600	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	20	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	56	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	100	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	12000	< RL	< RL	< RL
Tin (Sn)	mg/kg	0.5	40000	< RL	< RL	< RL
Organic Tin^	mg/kg	0.2	2.5	-	-	-
Zinc (Zn)	mg/kg	10	10000	< RL	< RL	< RL

**Abbreviation:** < less than

RL = Reporting Limit

mg/kg denotes milligram per kilogram

- denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (0.72 mg/kg)
- # According to EN 14350:2020, the limit of Cr(VI) is 0.002 mg/kg. However, the technical specificities were considered and whenever the Cr(VI) level measured in the sample is below the Limit of Quantification of the valid version of EN 71-3, the sample is to be considered passed.



Test Report No.: 244461040e 001 Page 22 of 26

#### **Test Result:**

		T007	T008	T009		
		5C	5G	5M		
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	6000	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	120	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	10	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	4000	< RL	< RL	< RL
Boron (B)	mg/kg	10	3200	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	3.6	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	100	100 < RL		< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.002#	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	2.8	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	1660	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	5.0	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	600	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	20	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	56	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	100	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	12000	< RL	< RL	< RL
Tin (Sn)	mg/kg	0.5	40000	< RL	< RL	< RL
Organic Tin^	mg/kg	0.2	2.5	-	-	-
Zinc (Zn)	mg/kg	10	10000	< RL	< RL	< RL

**Abbreviation:** < less than

RL = Reporting Limit

mg/kg denotes milligram per kilogram

- denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (0.72 mg/kg)
- # According to EN 14350:2020, the limit of Cr(VI) is 0.002 mg/kg. However, the technical specificities were considered and whenever the Cr(VI) level measured in the sample is below the Limit of Quantification of the valid version of EN 71-3, the sample is to be considered passed.



**Test Report No.: 244461040e 001** Page 23 of 26

#### **Test Result:**

		T010	T011	T012		
		5E	5K	51		
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	6000	< RL	< RL	< RL
Antimony (Sb)	mg/kg	5	120	< RL	< RL	< RL
Arsenic (As)	mg/kg	5	10	< RL	< RL	< RL
Barium (Ba)	mg/kg	2.5	4000	< RL	< RL	< RL
Boron (B)	mg/kg	10	3200	< RL	< RL	< RL
Cadmium (Cd)	mg/kg	1	3.6	< RL	< RL	< RL
Chromium III (Cr(III))	mg/kg	10	100 < RL		< RL	< RL
Chromium VI (Cr(VI))	mg/kg	0.045	0.002#	< RL	< RL	< RL
Cobalt (Co)	mg/kg	2.5	2.8	< RL	< RL	< RL
Copper (Cu)	mg/kg	2.5	1660	< RL	< RL	< RL
Lead (Pb)	mg/kg	2.5	5.0	< RL	< RL	< RL
Manganese (Mn)	mg/kg	2.5	600	< RL	< RL	< RL
Mercury (Hg)	mg/kg	2.5	20	< RL	< RL	< RL
Nickel (Ni)	mg/kg	2.5	56	< RL	< RL	< RL
Selenium (Se)	mg/kg	10	100	< RL	< RL	< RL
Strontium (Sr)	mg/kg	2.5	12000	< RL	< RL	< RL
Tin (Sn)	mg/kg	0.5	40000	< RL	< RL	< RL
Organic Tin^	mg/kg	0.2	2.5	-	-	-
Zinc (Zn)	mg/kg	10	10000	< RL	< RL	< RL

**Abbreviation:** < less than

RL = Reporting Limit

mg/kg denotes milligram per kilogram

- denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (0.72 mg/kg)
- # According to EN 14350:2020, the limit of Cr(VI) is 0.002 mg/kg. However, the technical specificities were considered and whenever the Cr(VI) level measured in the sample is below the Limit of Quantification of the valid version of EN 71-3, the sample is to be considered passed.



**Test Report No.: 244461040e 001**Page 24 of 26

#### **Test Result:**

Test No.						
Material No.						
Unit	RL	Regulatory Requirement	Result			
mg/kg	10	6000	< RL			
mg/kg	5	120	< RL			
mg/kg	5	10	< RL			
mg/kg	2.5	4000	3.2			
mg/kg	10	3200	< RL			
mg/kg	1	3.6	< RL			
mg/kg	10	100	< RL			
mg/kg	0.045	0.002#	< RL			
mg/kg	2.5	2.8	< RL			
mg/kg	2.5	1660	< RL			
mg/kg	2.5	5.0	< RL			
mg/kg	2.5	600	< RL			
mg/kg	2.5	20	< RL			
mg/kg	2.5	56	< RL			
mg/kg	10	100	< RL			
mg/kg	2.5	12000	< RL			
mg/kg	0.5	40000	< RL			
mg/kg	0.2	2.5	-			
mg/kg	10	10000	< RL			
	mg/kg	mg/kg 10 mg/kg 5 mg/kg 5 mg/kg 2.5 mg/kg 10 mg/kg 10 mg/kg 10 mg/kg 0.045 mg/kg 2.5 mg/kg 0.5 mg/kg 0.5 mg/kg 0.2	Material No.           Unit         RL         Regulatory Requirement           mg/kg         10         6000           mg/kg         5         120           mg/kg         5         10           mg/kg         2.5         4000           mg/kg         10         3200           mg/kg         1         3.6           mg/kg         10         100           mg/kg         0.045         0.002#           mg/kg         2.5         2.8           mg/kg         2.5         1660           mg/kg         2.5         5.0           mg/kg         2.5         56           mg/kg         2.5         56           mg/kg         2.5         12000           mg/kg         0.5         40000           mg/kg         0.5         40000           mg/kg         0.2         2.5			

**Abbreviation:** < less than

RL = Reporting Limit

mg/kg denotes milligram per kilogram

- denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (0.72 mg/kg)
- # According to EN 14350:2020, the limit of Cr(VI) is 0.002 mg/kg. However, the technical specificities were considered and whenever the Cr(VI) level measured in the sample is below the Limit of Quantification of the valid version of EN 71-3, the sample is to be considered passed.

# Remark:

\* Cr(VI) content has been performed with reference to EN 71-3:2019, Annex F (analyzed by LC-ICP-MS or IC-ICP-MS/MS). Cr(III) content was confirmed by calculation.



**Test Report No.: 244461040e 001** Page 25 of 26

# 6. Sample picture(s):





Item 5 Item 5





Sample 5 Sample 5



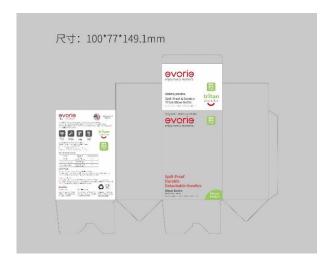


Sample 5 Sample 5



**Test Report No.:** 244461040e 001 Page 26 of 26

尺寸:110\*135mm



Packaging
The packaging was provided by client.



### Instructions

The instructions were provided by client.

Web: www tuv.com

- END -



### General Terms and Conditions of Business of TÜV Rheinland in Greater China

- These General Terms and Conditions of Business of TIV Rhighland in Greater China ("GTCB") is made between the client and one or more member entities of TIV Rheinland in Greater China is applicable as the case may be ("TIV Rheinland"). The Greater China hereof refers to Mainland China. Horn Kong and Taiwan. The client hereof includes:
  - (i) a natural person capable to form legally binding contracts under the applicable laws who concludes the contract not for the purpose of a daily use;
  - the incorporated or unincorporated entity duly organized, validly existing and capable to form gally binding contracts under the applicable law.
- The following terms and conditions apply to agreed services including consultancy services, information, deliveries and similar services as well as ancillary services and other secondary obligations provided within the scope of contract performance.
- Any standard terms and conditions of the client of any nature shall not apply and shall hereby be expressly excluded. No standard contractual terms and conditions of the client shall form part of the contract even if TUV Rheinland does not explicitly object to them.
- In the context of an ongoing business relationship with the client, this GTCB shall also apply to future contracts with the client without TÜV Rheinland having to refer to them separately in each individual case.

Unless otherwise agreed, all quotations submitted by  $T\bar{U}V$  Rheinland can be changed by  $T\bar{U}V$  Rheinland without notice prior to its acceptance and confirmation by the other party.

#### Coming into effect and duration of contracts

- Coming mole effect and ouration of comracts.

  The contract shall come into effect for the agreed terms upon the quotation letter of TÜV Rheinland or a separate contractual document being signed by both contracting parties, or upon the works requised by the client bring carried out by TÜV Rheinland. If the client instructs TÜV sole discretion, entitled to accept the order by giving written notice of such acceptance (including notice sent was decrotion; means) or by performing the requiseds devices.
- The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term agreed in the contract.
- 3.3 If the contract provides for an extension of the contract term, the contract term will be extended by the term provided for in the contract unless terminated in writing by either party with a three-month notice prior to the end of the contractual term.

- The scope and type of the services to be provided by TÜV Rheinland shall be specified in the common sp

- ocodure to be followed.

  secution to the work there shall be no simultaneous assumption of any guarantee of the 
  renements (proper quality) and working order of either tested or examines parts nor of the 
  application in apportune over the system of the 
  proper or which the restallation is based, 
  proper or the system or which the installation is based, 
  steriles and assembly of installations examined, nor for the yetters upon 
  the proper or the 
  transportune or the 
  transportune or 
  the proper or the 
  transportune or 
  the proper or 
  the proper or 
  the proper or 
  the 
  transportune or 
  transportune
- In the case of inspection work, TÜV Rheinland shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.
- unless outletwise expressly agreed in writing.

  If mandatory legal regulations and standards or official requirements for the agreed service scope change after conclusion of the contract, with a written notice to the client, TUV Rheinland shall be entitled to additional remuneration for resulting additional a pexpesses.
- The services to be provided by TUV Rheinland under the contract are agreed exclusively with the client. A contract of third parties with the services of TUV Rheinland, as well as making available of and justifying confidence in the work results flest reports, lets results, expert reports, etc.) is not part of the agreed services. This also applies if the client passes on work results in full or in extract to third parties in accordance with clause 11.4.
- full or in extracts 10 hird parties in accordance with clause 11.4.

  The client understands and agrees that in order to perform the contract with TUV Rheinland, the client may meed to sign one of more contractual gariements with almore third party(les) and client may meed to sign one of more contractual gariements with almore third party(les) and contractual gariements. TUV Rheinland will mently beast be corresponding to gail labelity according to this contract and the direct services actually to be provided by our company in the contractual gariements. TUV Rheinland services to be provided by that estimates and contractual contractual gariements. Tuvit Rheinland services to be provided by that estimates and contractual contractual gariements are services. In order to contract the contractual contractual gariements are serviced to the contractual contractu cusuation ruses, such tees are not within the scope of the contract price, the client shall funely perform the obligation of such annual reviewsurveillance and pay the corresponding less the client falls to perform such obligations of the annual reviewsurveillance or fees payment, it may lead to adverse consequences such as failture suspending/cancellation/invalidity of testing and/coertification results, which shall not be bome/liable by TUV Rheinland.
- For the service content agreed in the content type (by Kheminad to deliver relevant test samples, date, act, to any oversass laboratory or other places or sites to be designated by the cleant, TUV Rheinfad shall not late any responsibilities or notes to any oversass laboratory or other places or sites to be designated by the cleant, TUV Rheinfad shall not late any responsibilities or notes to any oversass laboratory or notes to any oversass to the clean type of the content of the c

- The contractually agreed periods/dates of performance are based on estimates of the work involved which are prepared in line with the details provided by the client. They shall only be binding if being confirmed as binding by TUV Rheinland in writing.
- If binding periods of performance have been agreed, these periods shall not commence until the client has submitted all required documents to TÜV Rheinland.
- Articles 5.1 and 5.2 also apply, even without express approval by the client, to all extensions of agreed periods/dates of performance not caused by TÜV Rheinland.
- TUV Rheinland is not responsible for a delay in performance, in particular if the client has not fulfilled his duties to cooperate in accordance with clause 6.1 or has not done so in time and, in particular, has not provided TUV Rheinland with all documents and information required for the performance of the service as specified in the contract.
- If the performance of TUV Rheinland is delayed due to unforesseable circumstances such as TUV Rheinland is entitled to postpore performance for a reasonable period of time which TUV Rheinland is entitled to postpore per
- to resume pertormance. If the client is cliently on the control to the control to the control to the control to the client's responsibility to agree on performance dates with TUV Rheinland, which enable the client's responsibility to agree on performance dates with TUV Rheinland, which enable the client to comply with the legial and/or fillingly prescribed addines. TUV Rheinland assumes no responsibility in this respect unless TUV Rheinland expressly agreed in Rheinland. On the control to the con

- The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to TÜV Rheinland.
- Dasign documents, susplies, audiliary staff, etc. recessary for performance of the services shall be made available free of change by the client. Kneever, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client prepresents and warrants of the clien
  - It has required statutory qualifications;
  - The product, service or management system to be certified complies with applicable laws and gulations; and
  - It doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China.
- If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contract/order without prior notice; and ii) withdraw the issued testing report/certificates if any.
- The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TUV Rheinland shall be entitled to charge extra fees for such additional expense.

- the scope of performance is not laid down in writing when the order is placed, invoicing shall be ased on costs actually incurred. It no price is agreed in writing, invoicing shall be made in coordance with the price list of TUV Rheinland valid at the time of performance.
- Unless otherwise agreed, work shall be invoiced according to the progress of the work
- If the execution of an order extends over more than one month and the value of the contract or the agreed fixed price exceeds £2,500.00 or equivalent value in local currency, TUV Rheinland may demand payments on account or in installment.

- All invoice amounts shall be due for payment within 30 days of the invoice date without deduction receipt of the invoice. No discounts and rebates shall be granted.
- Payments shall be made to the bank account of TÜV Rheinland as indicated on the invoice stating the invoice and client numbers. 8.2
- In cases of default of payment, TÜV Rheinland shall be entitled to claim default interest at the applicable short term loan interest rate publicly announced by a reputable commercial bank in the country where TÜV Rheinland is located. At the same time, TÜV Rheinland reserves the right to claim further damages.
- Should the client default in payment of the invoice despite being granted a reasonable grace period, TÜV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the contract.
- The provisions set forth in article 8.4 shall also apply in cases involving returned cheques, cessation of payment, commencement of insolvency proceedings against the client's assets or cases in which the commencement of insolvency proceedings has been dismissed due to lack of

- Objections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of receipt of the invoice.
- TÜV Rheinland shall be entitled to demand appropriate advance pay
- TOV Rhesizand shall be entitled to case its less, at the beginning of amount in overheads ander TOV Rhesizand shall be entitled to raise its less, at the beginning of amount in overheads ander the property of the property of the property of the property of the date on which the rise in fees shall come it not feet to period of notice of changes in feets. If the first in feet remains under 5% and come it not feet to period of notice of changes in feets. If the first in feet remains under 5% exceeds 5% per contractual year, the client shall be entitled to terminate the contract by the end of the period of notice of changes in feets. If the contract is not terminated the contract by the end of the period of notice of changes in feets. If the contract is not terminated the contract by the end of the period of notice of changes in feets. If the contract is not terminated the notice place. Only legally established and undisputed claims may be offset against claims by TOV Rheinland.
- TÜV Rheinland shall have the right at all times to setoff any amount due or payable by the client, including but not limited to setoff against any fees paid by the client under any contracts, agreement and/or orders/joutpations reached with TÜV Rheinland

- Any part of the work result ordered which is complete in itself may be presented by TÜV Rheinland for acceptance as an instalment. The client shall be obliged to accept it immediately
- If acceptance is required or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client refuses acceptance within this period stating at least one fundmental breach of contract by TUV
- The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV Rheinland.
- If acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the completion of the work shall take its place.
- During the Follow-Audit stage, if the client was unable to make use of the time windows provides for within the scope of a certification procedure for auditing/performance by TUV Rheinland and the certificate is benefore to be withdrawn (e.g. performance of surveillance audits, or if the client certificate is referred to be withdrawn (e.g. performance of surveillance audits, or if the client surveillance audits, or the client was present to the agreed date. TUV amount as compensation for expenses. The client reserves the right to prove that the TUV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above lump sum.
- Incodar as the client has undertaken in the contract to accept services, TÜV Rheinland shall also be entitled to charge lump-sum damages in the amount of 10% of the order amount as compensation for expenses if the service is not called within one year after the order has been placed. The client reserves the right to prove that the TUV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above mentioned lump sum.

- Confidentiality

  For the purpose of these terms and conditions, "confidential information" means all know-how, trade secrets, documents, images, drawings, expertise, information, data, test results, reports, trade secrets, documents, images, drawings, expertise, information data, test results, reports, and secret secretary and conditions and trade to the control of the control o
- All confidential information which the disclosing party transmits or otherwise discloses to the receiving party and which is created during performance of work by TUV Rheinland: may only be used by the receiving party for the purposes of performing the contract, unless expressly otherwise agreed in writing by the disclosing party;

  - may not be copied, distributed, published or otherwise disclosed by the receiving party, unless this is necessary for fulfilling the purpose of the contract or TUV Rheinland is required to pass on confidential information, inspection reports or documentation to the government authorities, judicial court, accreditation bodies or third parties that are involved in the performance of the
  - must be treated by the receiving party with the same level of confidentiality as the receiving party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which is reasonably required.
  - that which is reasonably required.

    The receiving party may disclose any confidential information received from the disclosing party only to those of its employees who need this information to perform the services required for the contract. The receiving party undertakes to oblige these employees to observe the same level of servery as set forth in this confidentiality clause.

  - Information for which the receiving party can furnish proof that:
    it was generally known at the time of disclosure or has become general knowledge
    violation of this confidentiality clause by the receiving party; or
  - b) it was disclosed to the receiving party by a third party entitled to disclose this information; or the receiving party already possessed this information prior to disclosure by the disclosing party, or
  - d) the receiving party developed it itself, irrespective of disclosure by the disclosing party, shall not be deemed to constitute "confidential information" as defined in this confidentiality clause.
  - so element to constitute commonster immunition as defined in this confidentiality clause.

    All condificinital information shall remain the property of the disclosing party. The receiving party hereby agrees to immediately (i) return all confidential information, including all copies, to the information, including all copies, so the disclosing party in writing, at any time if a crequisted by the disclosing party but at the literat and reports and certification party in writing, at any time if so requirested by the disclosing party but at the literat and reports and certificates prepared for the client solely for the purpose of fulfilling the obligations under the contract, which shall remain with the client. However, TUV Piteratrian is entitled to make preparing riting reports and certificates in order to evidence the correctness of its results and for general documentation purposes required by laws, regulations and the requirements of working procedure of TUV Piterhairad.
- From the start of the contract and for a period of three years after termination or expiry of the contract, the receiving party shall maintain strict secrecy of all confidential information and shall not disclose this information to any third parties or use if for itself.

#### Copyrights and rights of use, publications

- TOV Revisited bull retain all outside copyrights in the reports, owest reports/opinions, test reports/results, results, calculations, presentations etc. prepared by TUV Revisited vuries; otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TUV Revisited is free to grant others the right to use the work results for individual or all types of use (right of use).
- The client receives a simple, unlimited, non-transferable, non-sublicensable right of use to the contents of the work results produced within the scope of the contract, unless otherwise agreed by the parties in a separate agreement. The client may only use such reports, expert reports/opinions, test reports/results, results calculations, presentations etc. prepared within the cope of the contract for the contractually agreed purposes. 11.2
- 11.3 The transfer of right of use of the generated work results regulated in clause 11.2. of the GTCB is subject to full payment of the remuneration agreed in favour of TDV Rheinland.
- The client may use work results only complete and unshortened. The client may only pass on the work results in full unless TUV Rheinland has given its prior written consent to the partial passing on of work results.
- Any publication or duplication of the work results for advertising purposes or any further use of the work results beyond the scope regulated in clause 11, 2, and any guication of the introduction of TUY Reinstand earlier the prior written approval of TUY Reinstand reach included cases. The properties of the regulations and relevant rules (including but not limited to specific applicable testing and certification rules, etc.).
- TÜV Rheinland may revoke a once given approval according to clause 11.5 at any time without stating reasons. In this case, the client is obliged to stop the transfer of the work results immediately at his own expense and, as far as possible, to withdraw publications.
- The consent of TÜV Rheinland to publication or duplication of the work results does not entitle the client to use the corporate logo, corporate design or test/certification mark of TÜV Rheinland.

- Intensity of I'U Knemana

  Irrespective of the legal basis, to the fullest extent permitted by applicable law, in the event of a reimbursement of expenses caused by I'UV Rheinland, its legal representatives and/or reimbursement of expenses caused by I'UV Rheinland, its legal representatives and/or employees shall be limited to: (ii) in the case of a contract of that if lated overall be, three limes the agreed annual lee, (iii) in the case of a contract expenses by targed on a time and national basis, a maximum of 2000 Expense or pulsylated marour in local currency, and (iv) in the case of a mean market of the case of a mean of the ca
- 12.2
- In cases involving a fundamental breach of contract. The Newholds will be laid were where minor negligence is involved. For this purpose, a fundamental breach is breach is threach of a material contractual obligation, the performance of which permits the due performance of the contract. A claim for damages for a fundamental breach of contract shall be limited to the amount of damage reasonably foreseen as a possible consequence of such breach of contract at the time of the breach (reasonably foreseenable damages), unless any of the circumstances described in article 12.2 applies.
- TÜV Reisignard shall not be labele for the acts of the personnel made available by the client to support IUV Reisignal of in the performance of the services using the contract, unless such support the contract of the personnel made is supported to the personnel to the label for the acts of the personnel made available by the client under the foregoing provision, the client shall indemnity IUV Rheinland against any claims made by third parties arising from or in connection with such personnels as client.
- Unless otherwise contractually agreed in writing, TÜV Rheinland shall only be liable under the contract to the client 12.5
- None of the provisions of this article 12 changes the burden of proof to the disadvantage of the 12.7

- When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control law.
- The performance of a contract with the client is subject to the proviso that there are no obstacle to performance due to national or international foreign trade legislations or embargos and/or sanctions. In the event of a violation, TUV Rheinland shall be entitled to terminate the contract with immediate effect and the client shall compensate for the losses incured thereof by TUV

The client understands and agrees that TÜV Rheinland processes personal data (including but not limited to personal information) of the client and its related paries (including but not limited to the supplier of the client) for the purpose of fulfilling this contract. The client confirms that it has obtained ne cuert understands and agrees that TUV Rheinland processes personal data (including but not limited to the client and including parties (including but not limited to the limited to present information) of the client and its related parties (including but not limited to the the prior consent of the data subject, which entitles TUV Rheinland Tes expects and the processes the personal data that the client collected of processed by the prior process the personal data with the client collected of processed by the prior to date the client collected or the data in accordance with the relevant legal basis. If any personal data has to be disclosed or transferred to any thrift party or any overseas party coulsels of the datatic in which the personal data with the prior and party of the prior and party

- The test samples submitted by the client to TÜV Rheinland for testing will be scrapped following testing or will be returned to the client at the client's expense. The only exceptions are test samples, which are placed in storage on the basis of statutory regulations or of another agreement with the client.
- Charges apply if the test samples are stored at the premises of TÜV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation.
  - If reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations must be made available to TUZ Pheniand to make a premise to the premise of the prem
- The retention period for the documentation shall be 10 (ten) years after the expiry of the test mari certificates or shall meet the applicable legal requirements for EU/EC certificates of conformity and GS mark certificates.
- The costs of the handover and dispatch of the test samples for storage on the client's premises are borne by the client. TÜV Rheinland will be liable for the loss of test samples or reference samples from the laboratories or warehouses of TÜV Rheinland only in case of cross pedigence.

- Notwithstanding clause 3.3 of the GTCB, TÜV Rheinland and the client are entitled to terminate the contract in its entitlety or, in the case of services combined in one contract, each of the services with six (p) months notice to the end of the contractally agreed term. The notice period shall be shortened to six (6) weeks in case TÜV Rheinland is prevented from performing the services with six (soo ar assupposition of its accrediation or notification.
- For good causes, TÜV Rheinland may consider giving a written notice to the client to terminate the contract which includes but not limited to the following:
- terminate the contract which includes but not failthful to the Contract within hincludes but not failthful to the Contract within the contract which includes but not failthful to the Contract within the the client does not make a contract within the the client does not expend to the contract in the event of several consecutive belieps in payment (all least three times); and can a result the payment client of Turk Pheninand under the contract are considerably ended as a result the payment client of Turk Pheninand under the contract are considerably endergoed and Turk Pheninand under the contract are considerably endergoed and the contract of the contract and the contract are considerably endergoed and the contract are contracted and the contract are considerably endergoed and the contract are considerably endergoed and the contract with the contract and the contract with written notice by Turk Pheninand for good cause. Turk Pheninand short and considerably higher damage in Individual cases.

- considerably higher damage in inclinical cases.

  TUV Rheinland is also entitled to terminate the contract with written notice if the client has not been able to make use of the time windows for auditing /service provision provided by TUV Rheinland within the scope of a certification procedure and the certificate therefore has to withdrawn (for example during the performance of monitoring audits). Clause 16.3 applies

- intended and proof to the contrary, the following events affecting a Party shall be presumed to in the absence of proof to the contrary, the following events affecting a Party shall be presumed to hostilities, invasion, act of loreign enemise, extensive military mobilization; (ii) cold liver, for, hostilities, invasion, act of loreign enemise, extensive military mobilization; (ii) cold liver, for, hostilities, invasion, act of loreign enemise, extensive military mobilization, act of extensive and hostilities, and active and active and active and active active and active active and unlawful. compliance with any law or governmental order, expropriation, secture of works, unlawful. compliance with any law or governmental order, expropriation, secture of works, unlawful. compliance with any law or governmental order, expropriation, secture of works, consistent expressions, and active and present active active active active active active and information system or energy. (via) general labor disturbance such as boycott, strike and lock-out, go-clow, occupation of factories and premises.
- to be a compared to include a dispersion of the compared to the contract of the contract of the contract and from any liability in damping contract and from any liability in damping or from any other contractual remedy by the contract and from any liability in damping or from any other contractual remedy by the contract the contract of the contract and the contract and the contract of the contra

- The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the contract.
- Notwithstanding paragraph 1 of this Clause, where a Party proves that:
- The continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the conclusion of the contract; and that
- It could not reasonably have avoided or overcome the event or its consequences, the Parties are bound, within a reasonable time of the invocation of this Clause, to negotiate alternative contractual terms which reasonably allow to overcome the consequences of the event. Where Clause 18.2 applies, but where the Parties have been unable to agree alternative contractual terms as provided in that paragraph, the Party invoking this Clause is entitled to terminate the contact, but cannot request adaptation by the judge or arbitrator without the agreement of the other Party.
- Partial invalidity, written form, place of jurisdiction and dispute resolution

# All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 17.1.

- Should one or several of the provisions under the contract and/or these terms and conditions be or become ineffective, the contracting parties shall replace the invalid provision with a legally valid provision that comes closest to the content of the invalid provision in legal and commercial terms. Unless otherwise stipulated in the contract, the governing law of the contract and these terms and conditions shall be chosen following the rules as below:
- if TÜV Rheinland in question is legally registered and existing in the People's Republic of China, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China.
- if TŪV Rheinland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of
- if TÜV Rheinland in question is legally registered and existing in Hong Kong, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Hong Kong.
- Any dispute in connection with the contract and these terms and conditions or the execution thereof shall be settled friendly through negotiations.
- Unless otherwise stipulated in the contract, if no settlement or no agreement in respect of the extension of the negotiation period can be reached within two months of the arising of the dispute, the dispute shall be submitted:
- in the case of 10° Wheniand in question being legally registered and existing in the People's Republic of China, to China International Economic and Trade Arbitration Commission (ICETAC) to be settled by arbitration under the International Economic of CIETAC in force when the arbitration is sufficiently to the International Commission of CIETAC in force when the arbitration is sufficiently the International Commission of CIETAC in force when the arbitration is suppropriately chosen by the claiming party.
- appropriately crossin by the customing party.

  In the case of TDV Rheinland in question being legally registered and existing in Taiwan, to Chinese Arbitration Association, Taipei to be arbitrated in accordance with its then current Ru of Arbitration. The arbitration shall take place in Taipei.
- c) in the case of TÜV Rheinland being legally registered and existing in Hong Kong, to Hong Kong International Arbitration Centre (HKIAC) to be settled by arbitration under the HKIAC Administered Arbitration Rules in force when the Notice of Arbitration is submitted in accordance with these rules. The arbitration shall take place in Hong Kong.
- The decision of the relevant arbitration tribunal shall be final and binding on both parties. The arbitration fee shall be borne by the losing party.