TEST REPORT

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

Name of Product :	5pc Toothbrush
Test Model :	04197
Model May Cover :	/
Lot No.:	2042437
Buyer:	Adriaanse Import & Export B.V.
Sample Received :	Feb. 15, 2017
Test Period :	Feb. 15, 2017 - Feb. 21, 2017

As requested by the client, according to German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30, Commission Regulation (EU) No 10/2011 and its subsequent amendment Regulation EU No.1282/2011, 1183/2012 , 202/2014, 284/2011 and Regulation (EU) 2016/1416 on plastic materials and articles intended to come into contact with foodstuffs ,General Requirement (Article 3) in EU Regulation No. 1935/2004 to do the following test items:

Test Items:	Conclusion:
1. Overall migration test for PA	PASS
2. Soluble Heavy Metals for PA	PASS
3. Polycyclic Aromatic Hydrocarbons (PAHs) contents according to AfPS GS 2014:01 PAK	PASS

Prepared By : **Ada. Wang**
Testing Engineer

Reviewed By : **Cookie. Chen**
Project Supervisor

Issued By : **Kevin. Chen**
Lab Manager

TEST RESULTS:

1. 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	Overall Migration (mg/dm^2)		Maximum Permissible Limit (mg/dm^2)
		1#	2#	
Surface area(dm^2)/Volume(ml)	/	1/100	1/100	/
Deionized Water	2 hours at 70℃	<3.0	<3.0	10
3% Acetic Acid (W/V) Aqueous Solution	2 hours at 70℃	<3.0	<3.0	10

Simulant Used	Test Condition	Overall Migration (mg/dm^2)		Maximum Permissible Limit (mg/dm^2)
		3#	4#	
Surface area(dm^2)/Volume(ml)	/	1/100	1/100	/
Deionized Water	2 hours at 70℃	<3.0	<3.0	10
3% Acetic Acid (W/V) Aqueous Solution	2 hours at 70℃	<3.0	<3.0	10

Simulant Used	Test Condition	Overall Migration (mg/dm^2)		Maximum Permissible Limit (mg/dm^2)
		5#	6#	
Surface area(dm^2)/Volume(ml)	/	1/100	1/100	/
Deionized Water	2 hours at 70℃	<3.0	<3.0	10
3% Acetic Acid (W/V) Aqueous Solution	2 hours at 70℃	<3.0	<3.0	10

Remark: Report the third extractive results.

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

Add.:3F,B3,218 Xinghu St., Suzhou Industrial Park,China,215123
Tel.:+86/(0)512 87661878 Fax: +86/(0)512 87661802 Web:www.stq-cert.com
Technical service: TS@stq-cert.com Customer service: CS@stq-cert.com

2. Soluble Heavy Metals

Test Method: Sample preparation in 3% Acetic acid at 70℃ for 2 hours, followed by analysis using Inductively Coupled Argon Plasma Spectrometer.

Test Items	Result (mg/kg)			Maximum Permissible Limit (mg/kg)
	1#	2#	3#	
Surface area(dm^2)/Volume(ml)	1/167	1/167	1/167	/
Soluble Barium	<0.01	<0.01	<0.01	1
Soluble Cobalt	<0.01	<0.01	<0.01	0.05
Soluble Copper	<0.01	<0.01	<0.01	5
Soluble Iron	<0.01	<0.01	<0.01	48
Soluble Lithium	<0.01	<0.01	<0.01	0.6
Soluble Manganese	<0.01	<0.01	<0.01	0.6
Soluble Zinc	<0.01	<0.01	<0.01	5
Soluble Aluminum	<0.01	<0.01	<0.01	1

Test Items	Result (mg/kg)			Maximum Permissible Limit (mg/kg)
	4#	5#	6#	
Surface area(dm^2)/Volume(ml)	1/167	1/167	1/167	/
Soluble Barium	<0.01	<0.01	<0.01	1
Soluble Cobalt	<0.01	<0.01	<0.01	0.05
Soluble Copper	<0.01	<0.01	<0.01	5
Soluble Iron	<0.01	<0.01	<0.01	48
Soluble Lithium	<0.01	<0.01	<0.01	0.6
Soluble Manganese	<0.01	<0.01	<0.01	0.6
Soluble Zinc	<0.01	<0.01	<0.01	5
Soluble Aluminum	<0.01	<0.01	<0.01	1

Remark: Report the third extractive results.

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

Add.:3F,B3,218 Xinghu St., Suzhou Industrial Park,China,215123
Tel.:+86/(0)512 87661878 Fax: +86/(0)512 87661802 Web:www.stq-cert.com
Technical service: TS@stq-cert.com Customer service: CS@stq-cert.com

3. Polycyclic Aromatic Hydrocarbons (PAHs) Contents

Test Method: With reference to AfPS GS 2014:01 PAK, Analysis was performed by GC-MS.

Test Items	Unit	MDL	Test Results			
			7#▲	8#▲	9#▲	10#▲
Naphthalene	mg/kg	0.1	N.D.	N.D.	N.D.	N.D.
Acenaphthylene		0.1	N.D.	N.D.	N.D.	N.D.
Acenaphthene		0.1	N.D.	N.D.	N.D.	N.D.
Fluorene		0.1	N.D.	N.D.	N.D.	N.D.
Phenanthrene		0.1	N.D.	N.D.	N.D.	N.D.
Anthracene		0.1	N.D.	N.D.	N.D.	N.D.
Fluoranthene		0.1	N.D.	N.D.	N.D.	N.D.
Pyrene		0.1	N.D.	N.D.	N.D.	N.D.
Benzo[a]anthracene		0.1	N.D.	N.D.	N.D.	N.D.
Chrysene		0.1	N.D.	N.D.	N.D.	N.D.
Benzo[b]fluoranthene		0.1	N.D.	N.D.	N.D.	N.D.
Benzo[k]fluoranthene		0.1	N.D.	N.D.	N.D.	N.D.
Benzo[a]pyrene		0.1	N.D.	N.D.	N.D.	N.D.
Indeno[1,2,3-cd]pyrene		0.1	N.D.	N.D.	N.D.	N.D.
Dibenzo[a,h]anthracene		0.1	N.D.	N.D.	N.D.	N.D.
Benzo[g,h,i]perylene		0.1	N.D.	N.D.	N.D.	N.D.
Benzo[j]fluoranthene		0.1	N.D.	N.D.	N.D.	N.D.
Benzo[e]pyrene		0.1	N.D.	N.D.	N.D.	N.D.
Sum of 18 PAHs		**---**	**N.D.**	**N.D.**	**N.D.**	**N.D.**

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

Add.:3F,B3,218 Xinghu St., Suzhou Industrial Park,China,215123
Tel.:+86/(0)512 87661878 Fax: +86/(0)512 87661802 Web:www.stq-cert.com
Technical service: TS@stq-cert.com Customer service: CS@stq-cert.com

LIMITS(mg/kg) FOR PAH IN PRODUCTS:

Parameter	Category 1	Category2		Category 3	
	To be taken materials which are intended in the mouth, or materials in toys intended and with long-term skin contact (longer than 30 seconds)	Materials that are not covered in Category 1, with predictable skin contact longer than 30 seconds (long-term skin contact) or repeated short-term skin contact		Materials that do not fall into Category 1& Category 2, With predictable skin contact up to 30 s (short-term skin contact)	
		Toys by Directive 2009/48/EC	Other products by ProdSG	Toys by Directive 2009/48/EC	Other products by ProdSG
Naphthalene	< 1	< 2		< 10	
Acenaphthylene	Total < 1	Total < 5	Total < 10	Total < 20	Total < 50
Acenaphthene					
Fluorene					
Phenanthrene					
Anthracene					
Fluoranthene					
Pyrene					
Benzo[a]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Chrysene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[b]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[k]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[a]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Indeno[1,2,3-cd]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Dibenzo[a,h]anthracene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[g,h,i]perylene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[j]fluoranthene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Benzo[e]pyrene	< 0.2	< 0.2	< 0.5	< 0.5	< 1
Sum of 18 PAHs	< 1	< 5	< 10	< 20	< 50

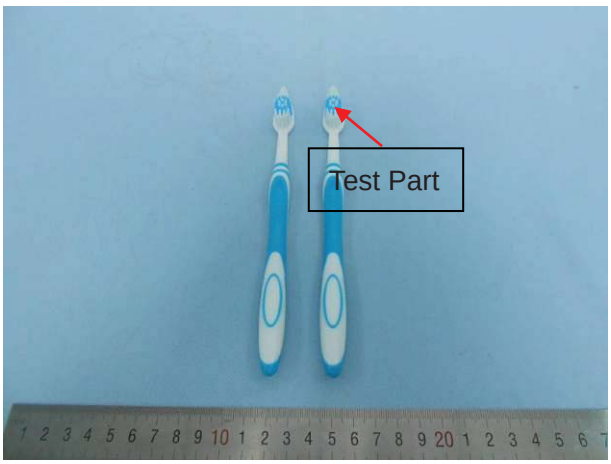
******** To be continued ********

Note : 1) MDL = Method Detection Limit.
2) N.D. = Not detected, less than MDL.
3) "---" = Not Regulated.
4) ▲As the client required, the sample was tested in mixture.

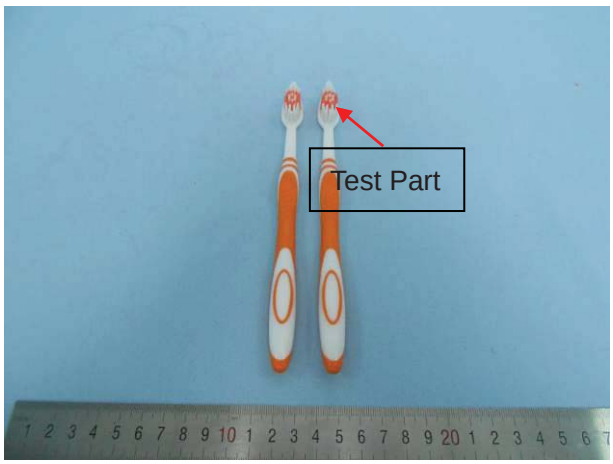
Test Part Description:

1# Sky blue nylon
2# Orange nylon
3# Green nylon
4# Blue nylon
5# Black nylon
6# White nylon
7# Sky blue nylon + orange nylon + green nylon
8# Blue nylon + black nylon
9# Sky blue plastic + orange plastic + green plastic
10# Blue plastic + grey plastic

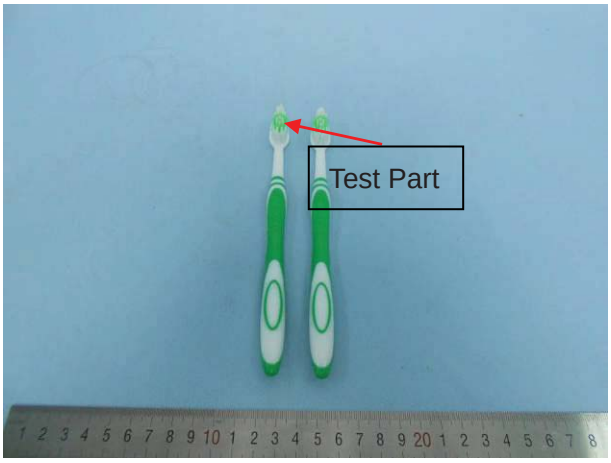
SAMPLE PHOTOS



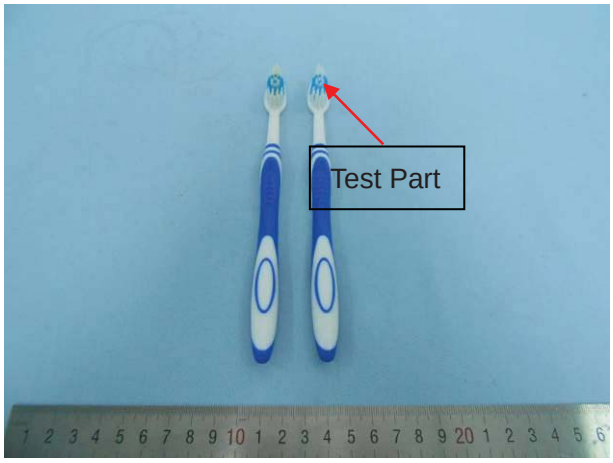
1#



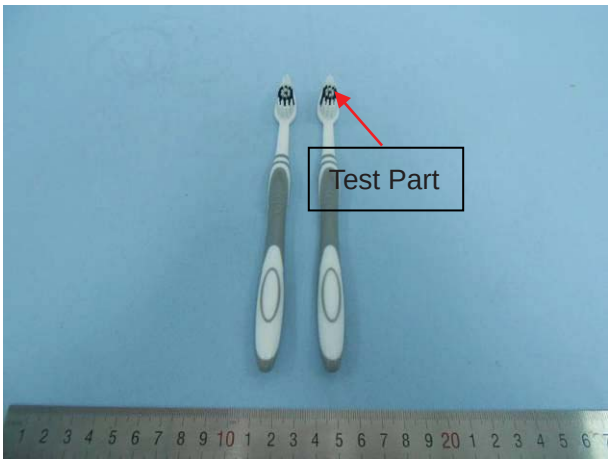
2#



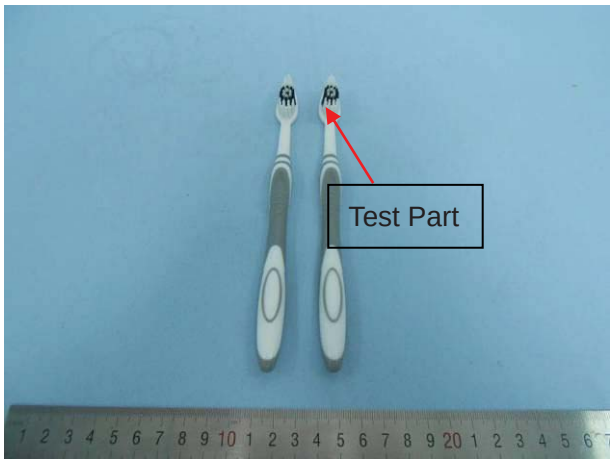
3#



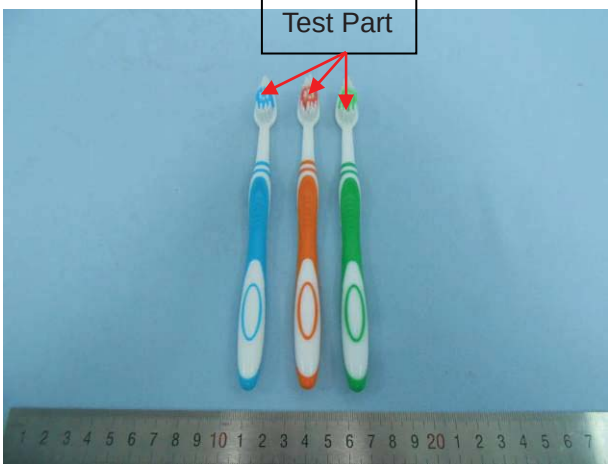
4#



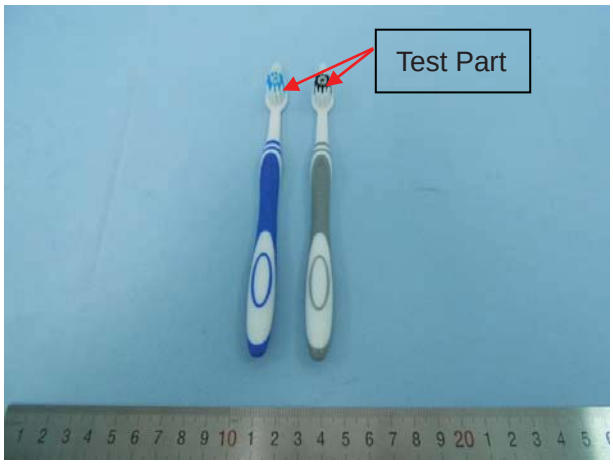
5#



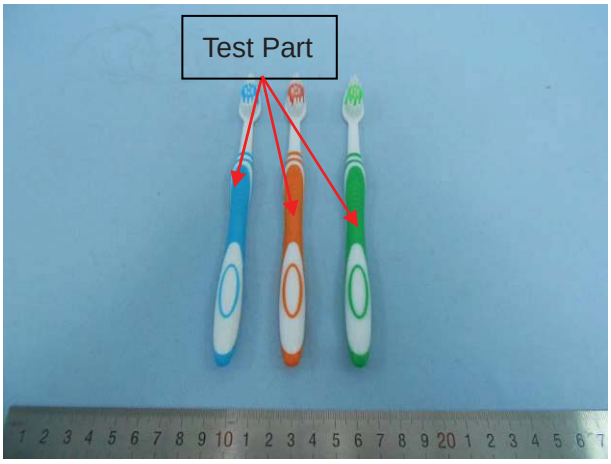
6#



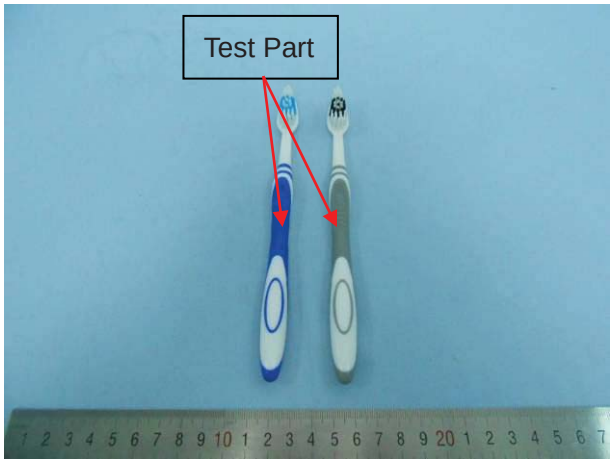
7#



8#



9#



10#

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

PRODUCT PHOTO

******** END OF REPORT ********