



CONSUMER PRODUCTS SERVICES DIVISION

## TAI FAT BAKELITE INDUSTRIAL LTD.

**Technical Report:** (5210)183-0383 (Revision)

September 10, 2010

Supplement to Technical Report No.: (5210)183-0383

Page 1 of 11

Date Received: July 15, 2010

FAN  
TAI FAT BAKELITE INDUSTRIAL LTD.  
FLAT F, 19/F.  
BLOCK 1, GOLDEN DRAGON INDUSTRIAL CENTRE  
152-160 TAI LIN PAI ROAD, KWAI CHUNG  
NEW TERRITORIES  
HONG KONG

Sample Description: BIG BRAIN EUROPE BOARD GAME AND CARD TIN GAME

- 1.) BIG BRAIN EUROPE BOARD GAME - FRENCH
- 2.) CARD TIN GAME - FRENCH
- 3.) BIG BRAIN EUROPE BOARD GAME - SPANISH
- 4.) CARD TIN GAME - DUTCH

Vendor:	N/A	Sample Size:	25
Manufacturer:	N/A	Style No(s):	4008319, 08192
Buyer:	N/A	SKN/SKU No.:	N/A
Labeled Age Grade:	8+	PO No.:	N/A
Appropriate Age Grade:	NOT REQUESTED	Ref #:	N/A
Client Specified Age Grade:	NOT SPECIFIED	Country of Origin:	FOR STYLE#1, 2, 4 SAMPLE(S) = NO INFORMATION ; FOR STYLE#3 SAMPLE(S) = PRODUCT MADE IN CHINA
Tested Age Grade:	OVER 8 YEARS OF AGE	Assortment No.:	N/A
UPC Code:	794764081848, 794764081947, 4006592483197, 794764081923		
Test Starting Date:	JULY 15, 2010		
Test Finished Date:	JULY 23, 2010		

### EXECUTIVE SUMMARY:

The sample(s) MEET the following requirement(s):

- The mechanical and physical properties requirements of the tested subclauses of the European Standard, "Safety of toys", EN71: Part 1:2005, incorporating amendment A8:2009, clauses 1-7.
- The flammability requirements of the European Standard "Safety of Toys", EN 71: Part 2: 2006, and Amendment A1: 2007.
- The migration of certain elements requirements of the European Standard, "Safety of toys", EN 71: Part 3: 1994, and Amendments – A1:2000/ AC:2002.



**EXECUTIVE SUMMARY:**

Note: The received sample(s) contained accessible component(s) of less than 10 milligrams by weight on one single sample, therefore such component(s) was not subject to migration of certain elements of European Standard, "Safety of Toys, EN 71:Part 3:1994 and Amendments – A1:2000/ AC:2002", as specified in Clause 7 - Selection of test portions.

	Product	Product Number	BAR Code
	BIG BRAIN ACADEMY - NINTENDO		
FRENCH			
	Cérébrale Académie - Le jeu	8184	7 94764 08184 8
	Cérébrale Académie - Jeu de cartes (boîte métal)	8194	7 94764 08194 7
	Cébrérale Académie - Tangram Puzzle (boîte métal)	30506	7 94764 30506 7
Dutch			
	Big Brain Academy - Het bordspel	8182	7 94764 08182 4
	Big Brain Academy - Kaartspel (tin box)	8192	7 94764 08192 3
	Big Brain Academy - Tangram (tin box)	30507	7 94764 30507 4
GERMAN			
	Big Brain Academy - Das Brettspiel	8186	7 94764 08186 2
	Big Brain Academy - Kartenspiel (Metallbox)	8196	7 94764 08196 1
	Big Brain Academy - Tangram (Metallbox)	30505	7 94764 30505 0

BUREAU VERITAS HONG KONG LIMITED

Choy Hon Kwong, Adams  
 Senior Manager  
 Chemical Department

BUREAU VERITAS HONG KONG LIMITED

Chan Chin Fai, Alex  
 Manager  
 Toys and Juvenile Products Department

AC/AL/cc

*This report shall not be reproduced except in full, without the written approval of our laboratory.*



**RESULTS:**

**APPROPRIATE AGE GRADE DETERMINATION**

The Appropriate Age Grade is determined with reference to the EN71 : Part 1 : 2005, CR 14379:2002 "Classification of toys-Guidelines" prepared by Technical Committee CEN TC 52 and Age Grade Determination Guidelines of the Consumer Product Safety Commission (CPSC).	
Note :	The most stringent age grade from the Labeled Age Grade and the Appropriate Age Grade will be used for testing.
Note :	If the client does not specify an age grade for testing or request Bureau Veritas Consumer Products Services, Inc. to determine an appropriate age grade, the labeled age grade will be used for testing.

**EXPLANATION OF THE ABBREVIATIONS FOR PART 1, 2 & 6**

Symbol	Explanation				
NM	The sample(s) DOES NOT MEET the requirement of this Subclause				
M	The sample(s) MEET the requirement of this Subclause				
N/A	Not Applicable				
NR	Not Requested				
NE	Not Evaluated				
NP	None Present				
P	Present				
R	Refer to Comment Section of this report				
Symbol	Language Present	Symbol	Language Present	Symbol	Language Present
B	Belgian language	G	German language	PR	Portuguese language
D	Danish language	GR	Greek language	S	Spanish language
E	English language	H	Dutch language	SD	Swedish language
F	Finnish language	I	Italian language	SZ	Swiss language
FR	French language	N	Norwegian language		



**RESULTS:**

**MECHANICAL & PHYSICAL PROPERTIES  
 (EN 71: PART 1: 2005 AND AMENDMENT A8: 2009)**

Subclause	Requirement	Result
4.1	Material	M
4.2	Assembly	NA
4.3	Flexible plastic sheeting	NA
4.4	Toy Bags	NA
4.5	Glass	NA
4.6	Expanding materials	NA
4.7 & 7.6	Edges	M
4.8 & 7.6	Points and metallic wires	M
4.9	Protruding parts	NA
4.10.1	Folding and sliding mechanisms	NA
4.10.2	Driving mechanisms	NA
4.10.3	Hinges	NA
4.10.4	Springs	NA
4.11	Mouth actuated toys	NA
4.12 & 7.3	Balloons	NA
4.13 & 7.9	Toy Kites and other flying toys	NA
4.14.1	Toys which a child can enter	NA
4.14.2 & 7.8	Masks and helmets	NA
4.15.1	Toys propelled by child	
4.15.1.2 & 7.10 & 7.16	Toys propelled by child – Instructions for use	NA
4.15.1.3	Toys propelled by child – Strength	NA
4.15.1.4	Toys propelled by child – Stability	NA
4.15.1.5	Toys propelled by child – Braking	NA
4.15.1.6	Toys propelled by child - Transmission	NA
4.15.2	Free wheeling toy bicycles	
4.15.2.2 & 7.15	Toy bicycles – Instruction for use	NA
4.15.2.3	Toy bicycles – Saddle height	NA
4.15.2.4	Toy bicycles - Braking	NA
4.15.3 & 7.16 & 7.19	Rocking horses	NA
4.15.4 & 7.16	Toys not propelled by child	NA
4.15.5 & 7.18	Toys scooters	NA
4.16	Heavy immobile toys	NA
4.17.1	Projectiles – General	NA
4.17.2	Projectiles toys without stored energy	NA
4.17.3 & 7.7	Projectile toys with stored energy	NA
4.17.4 & 7.7	Bows and arrows	NA



**RESULTS:**

**MECHANICAL & PHYSICAL PROPERTIES  
 (EN 71: PART 1: 2005 AND AMENDMENT A8: 2009)**

Subclause	Requirement	Result
4.18 & 7.4	Aquatic toys	NA
4.19 & 7.13 & 7.14	Percussion caps	NA
4.20* a, b, c, e, f, & 7.14	Acoustics	NA
4.20d	Acoustics – Percussion caps	NA
4.21	Toys containing a non-electrical heat source	NA
4.22 & 7.2	Small balls	NA
4.23	Magnet	
4.23.2 a, b & c	Toy other than magnetic / electrical experimental sets	NA
4.23.3 & 7.20	Magnetic / electrical experimental sets	NA
<b>FOR TOYS INTENDED FOR CHILDREN UNDER 36 MONTHS</b>		
5.1	General	NA
5.1a	Small parts – as received	NA
5.1b	Small parts, sharp points, sharp edges – after tests	NA
5.1c	Cross section < 2mm metal points & wires	NA
5.1e	Toys contain glue	NA
5.1f	Splinters	NA
5.1g	Casing of toys	NA
5.2	Filing materials	NA
5.3	Adhesion of plastic sheeting	NA
5.4 & 7.11	Cords on toys	NA
5.5 & 7.12	Liquid filled toys	NA
5.6	Electrically driven toys	NA
5.7	Glass and porcelain	NA
5.8	Shape and size	NA
5.9 & 7.17	Monofilament fibres	NA
5.10	Small balls	NA
5.11	Play figures	NA
5.12	Hemispheric shaped toys	NA
5.13	Suction cups	NA
6	Packaging	NA
<b>WARNINGS, INSTRUCTIONS FOR USE</b>		
7.1	Warnings, instructions for use	NA
7.1	Importer name & address	NA
7.1	Retain statement	NA
7.1	CE marking	M
7.2	Toys not intended for children under 36 months	NA
7.5	Functional toys	NA



**RESULTS:**

REQUIREMENTS & TEST METHODS CROSS REFERENCE TABLE FOR PART 1

Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method
4.3	8.25.1	4.14.2	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.11, 8.12	4.17.3	8.24.1	5.4	8.20
4.6	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.14	4.15.1.3	8.11, 8.12, 8.21, 8.22	4.17.4	8.24.2	5.5	8.15
4.7	8.11	4.15.1.4	8.23.1	4.18	8.2, 8.3, 8.4.2.1	5.6	8.29
4.8	8.12, 8.13	4.15.1.5	8.26.1	4.20	8.28	5.8	8.16
4.9	8.4.2.3, 8.11, 8.12	4.15.2.4	8.26.2	4.21	8.30	5.10	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9, 8.32
4.10.1	8.18.2, 8.18.3	4.15.3	8.21, 8.23.1	4.22	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.32	5.11	8.33
4.10.2	8.5, 8.6, 8.7, 8.11, 8.12	4.15.4	8.21, 8.23.1	4.23	8.2, 8.3, 8.4.2.1, 8.4.2.2, 8.5, 8.7, 8.8, 8.34, 8.35	5.12	8.3, 8.4.2.1, 8.5, 8.6, 8.7, 8.8, 8.9,
4.11	8.2, 8.3, 8.4.2.1, 8.9, 8.17	4.15.5	8.11, 8.12, 8.21, 8.22, 8.26.3, 8.27	5.1	8.2, 8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.9, 8.11, 8.12	5.13	8.3, 8.4.2.1, 8.5, 8.7, 8.8, 8.32
4.13	8.19	4.16	8.23.2	5.2	8.2, 8.4.2.2, 8.10		
4.14.1	8.31.1, 8.31.2	4.17.1	8.4.2.3	5.3	8.4.2.1, 8.25		

\* Note: With modification by using Sound level meter complying with the specifications of IEC60651 and IEC60804.



**RESULTS:**

**FLAMMABILITY (EN 71: PART 2: 2006 & AMENDMENT A1: 2007 )**

Subclause	Requirement	Result
4.1	Celluloid (cellulose nitrate)	NP
4.1	Dangerous flammable gases and solids	NP
4.1	Highly flammable liquids, flammable liquids and flammable gels	NA
4.1	Materials with a pile surface which produces a flash effect on the approach of a flame	NA
4.2	Toys to be worn on the head	NA
4.3	Toy disguise costumes and toys intended to be worn by child on play	NA
4.3	Toy disguise costumes and toys intended to be worn by child on play with warning	NA
4.4	Toys intended to be entered by a child	NA
4.4	Toys intended to be entered by a child with warning	NA
4.5	Filled soft toys with a pile or textile surface	NA

**REQUIREMENTS & TEST METHODS CROSS REFERENCE TABLE FOR PART 2**

Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method	Sub-clause	Test Method
4.2.2	5.2	4.2.4	5.3	4.3	5.4	4.5	5.5
4.2.3	5.3	4.2.5	5.4	4.4	5.4	-	-



**RESULTS:**

**MIGRATION OF CERTAIN ELEMENTS (EN 71-3: 1994 and Amendments - A1:2000/AC:2002)**

Test Method: Soluble heavy metals content analysis was determined by Inductively Coupled Plasma Spectrometry.

Sample Identity	Color / Component	Location	Style
<b>Type II: Polymeric Materials</b>			
A	blue plastic	stand of balance, body and container of balance	1, 3
B	light blue plastic	body of balance	1, 3
C	dark blue plastic	timer	1, 3
D	transparent plastic	timer	1, 3
E	black plastic	pointer	1, 3
F	light green plastic	token	1, 3
G	yellow plastic	token	1, 3
H	purple plastic	token	1, 3
I	matt blue plastic	token	1, 3
J	orange plastic	token	1, 3
K	transparent red plastic	screen	1- 4
L	dull black plastic	cap and end cap of pen	1- 4
M	dull white plastic	body of pen	1- 4
N	clear plastic	screen	1- 4
O	off white plastic	tray	2, 4
P	black plastic	tray	1, 3
<b>Type III: Paper And Paper Board</b>			
Q	multicolor printed matt white paper	playing card	1- 4
R	multicolor printed dull white paper/ glue	board	1, 3
S	black printed brown paper	board	1, 3
T	multicolor printed matt bright white paper/ glue	box	1, 3
U	blue printed bright white paper	nanogram	1, 3
V	soft white/ grey paper	frame of screen	1- 4
<b>Type VI: Other Materials Whether Mass Coloured Or Not</b>			
W	white paper board	box	1, 3
X	grey paper board	nanogram	1, 3
<b>Type IV: Textiles</b>			
Y	white felt	tip of pen	1- 4
<b>Type VII: Materials Intended To Leave A Trace</b>			
Z	black ink	pen	1- 4
<b>Type I: Coatings</b>			
AA	all coating	box	2, 4





**RESULTS:**

**MIGRATION OF CERTAIN ELEMENTS (EN 71-3: 1994 and Amendments - A1:2000/AC:2002)**

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit All except Type VIII (mg/kg)	25	1000	75	60	60	90	60	500
Max. Limit Type VIII (mg/kg)	25	250	50	25	25	90	60	500
Analytical Correction	60%	30%	30%	30%	50%	30%	60%	60%

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se	Mass of Trace Amount (g)	Conclusion
Sample	Result (mg/kg)								(g)	
Q	LT 2	3	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
R	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
S	LT 2	27	LT 2	5	LT 2	6	LT 2	LT 2		PASS
T	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
U	LT 2	2	LT 2	2	LT 2	LT 2	LT 2	LT 2		PASS
V	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
W	LT 2	5	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
X	LT 2	6	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
Y	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	4		PASS
Z	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS
AA	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2	LT 2		PASS

mg/kg = milligrams per kilogram (ppm=parts per million)  
 CR = adjusted analytical result  
 LT = Less Than  
 \* = Average of duplicate analysis

As = Arsenic, Ba = Barium, Cd = Cadmium,  
 Cr = Chromium, Hg = Mercury, Pb = Lead,  
 Sb = Antimony, Se = Selenium



**BUREAU  
VERITAS**

TAI FAT BAKELITE INDUSTRIAL LTD.  
Technical Report: **(5210)183-0383 (Revision)**  
September 10, 2010  
Page 11 of 11

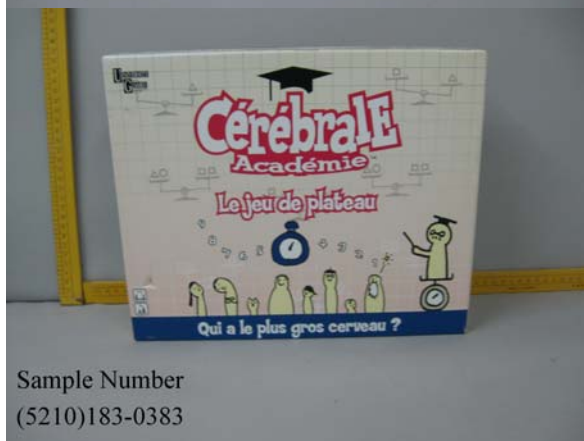
**RESULTS:**



Sample Number  
(5210)183-0383



Sample Number  
(5210)183-0383



Sample Number  
(5210)183-0383



Sample Number  
(5210)183-0383

END OF REPORT