

**Technical Report No.60.160.12.14018.06E**  
**Dated 2013-09-13**



Applicant: Baby Solutions SA  
Via Magazzini Generali 10

Test Subject: All I Need! BEAR  
Style No.: 30002.11

Purpose of Examination: (1) Migration of certain elements  
With reference to Directive 2009/48/EC and its amendment  
Directive 2012/7/EU on the Safety of Toys  
Sample preparation according to EN 71-3 : 2013 Migration of certain elements. As stated in the above specifications. Heavy metal analysis was determined by Inductively Coupled Plasma Spectrometry (ICP-OES) and Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Test Result : Refer to the Section 3

Conclusion: (1) EN71-3:2013 - Migration of certain elements Pass

Remark: (1) The result relates only to the items tested.  
(2) Samples are tested as received.

Note: No extract, abridgment or abstraction from a test report may be published or used to advertise a product without the written consent of the Director of TÜV SÜD Hong Kong Ltd. The results contained herein apply only to the particular sample tested and to the specific test carried out and not to samples of the current production line.

**1. Order**

**1.1 Customer's Reference**

Style No.: 30002.11

**1.2 Receipt Date of Test Sample, Location**

Received on 2013-09-03, Hong Kong

**1.3 Date of Testing, Location**

From 2013-09-06 to 2013-09-12, Hong Kong

**1.4 Document Submitted**

Nil

**2. Description of the Test Subject**

Sample	Color and Description	Photograph
001	Green fabric with green thread and yarn (body of bag cover)	
002	Brown fabric with brown/ white/ black thread (body of bear)	
003	Orange fabric with orange thread (body of bear)	
004	Blue fabric with blue thread (body of bag/ handle)	
005	White plastic (foam)	
006	Light green fabric (zipper's tape)	
007	Light green plastic (zipper's teeth)	
008	Dark green plastic (zipper's handle)	
009	Dark pink plastic (zipper's handle)	
010	Dark blue plastic (zipper's handle)	
011	White plastic (zipper's handle)	
012	Dark green fabric (binding of zipper)	
013	Black plastic (buckle)	
014	White fabric with multicolor print (label)	
015	White fabric (name card)	
016	Multicolor coating (name card)	
017	White fabric with white thread (Velcro loop)	
018	White plastic (Velcro hook)	



### 3. Test Results

#### 3.1 Migration of certain elements

With reference to Directive 2009/48/EC and its amendment

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Migration Elements	Result [mg/kg]				Maximally Permissible Limits [mg/kg]
	Sample 001	Sample 002	Sample 003	Sample 004	Category 3
Aluminum	<5.00	<5.00	<5.00	<5.00	70000
Antimony	<5.00	<5.00	<5.00	<5.00	560
Arsenic	<2.5	<2.5	<2.5	<2.5	47
Barium	<5.00	<5.00	<5.00	<5.00	18750
Boron	<5.00	<5.00	<5.00	<5.00	15000
Cadmium	<5.00	<5.00	<5.00	<5.00	17
Total Chromium	0.175	0.204	<0.2	0.265	#1Cr(III): 460 #1Cr(VI): 0.2
#2Chromium III	0.175	0.204	-	0.265	460
#2Chromium VI	<0.2	<0.2	-	<0.2	0.2
Cobalt	<5.00	<5.00	<5.00	<5.00	130
Copper	<5.00	<5.00	<5.00	<5.00	7700
Lead	<5.00	<5.00	<5.00	<5.00	160
Manganese	<5.00	<5.00	<5.00	<5.00	15000
Mercury	<5.00	<5.00	<5.00	<5.00	94
Nickel	<5.00	<5.00	<5.00	<5.00	930
Selenium	<5.00	<5.00	<5.00	<5.00	460
Strontium	<5.00	<5.00	<5.00	<5.00	56000
Tin	<5.00	<5.00	<5.00	<5.00	180000
#3Organic Tin	<5.00	<5.00	<5.00	<5.00	12
Zinc	31.3	45.7	33.6	37.3	46000
Category	Category 3	Category 3	Category 3	Category 3	
Conclusion	Pass	Pass	Pass	Pass	

Note:

1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram
3. "#1" denotes Chromium III and Chromium VI are determined by screening of total Chromium
4. "#2" denotes Chromium VI is determined by UV-VIS Spectrometry and Chromium III is calculated as total Chromium
5. "#3" denotes Organic Tin is determined by screening of total Tin



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Migration Elements	Result [mg/kg]				Maximally Permissible Limits [mg/kg]
	Sample 005	Sample 006	Sample 007	Sample 008	Category 3
Aluminum	6.76	<5.00	<5.00	<5.00	70000
Antimony	<5.00	<5.00	<5.00	<5.00	560
Arsenic	<2.5	<2.5	<2.5	<2.5	47
Barium	<5.00	<5.00	<5.00	<5.00	18750
Boron	<5.00	<5.00	<5.00	<5.00	15000
Cadmium	<5.00	<5.00	<5.00	<5.00	17
Total Chromium	<0.2	<0.2	<0.2	0.329	#1Cr(III): 460 #1Cr(VI): 0.2
#2Chromium III	-	-	-	0.329	460
#2Chromium VI	-	-	-	<0.2	0.2
Cobalt	<5.00	<5.00	<5.00	<5.00	130
Copper	<5.00	<5.00	<5.00	<5.00	7700
Lead	<5.00	<5.00	<5.00	<5.00	160
Manganese	<5.00	<5.00	<5.00	<5.00	15000
Mercury	<5.00	<5.00	<5.00	<5.00	94
Nickel	<5.00	<5.00	<5.00	<5.00	930
Selenium	<5.00	<5.00	<5.00	<5.00	460
Strontium	<5.00	<5.00	<5.00	<5.00	56000
Tin	<5.00	<5.00	<5.00	<5.00	180000
#3Organic Tin	<5.00	<5.00	<5.00	<5.00	12
Zinc	83.2	20.8	6.54	8.27	46000
Category	Category 3	Category 3	Category 3	Category 3	
<b>Conclusion</b>	Pass	Pass	Pass	Pass	

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  5. "#3" denotes Organic Tin is determined by screening of total Tin



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Migration Elements	Result [mg/kg]				Maximally Permissible Limits [mg/kg]
	Sample 009	Sample 010*	Sample 011	Sample 012	Category 3
Aluminum	<5.00	NA	<5.00	<5.00	70000
Antimony	<5.00	NA	<5.00	<5.00	560
Arsenic	<2.5	NA	<2.5	<2.5	47
Barium	<5.00	NA	<5.00	<5.00	18750
Boron	<5.00	NA	<5.00	<5.00	15000
Cadmium	<5.00	NA	<5.00	<5.00	17
Total Chromium	0.675	NA	<0.2	<0.2	#1Cr(III): 460 #1Cr(VI): 0.2
#2Chromium III	0.675	-	-	-	460
#2Chromium VI	<0.2	-	-	-	0.2
Cobalt	<5.00	NA	<5.00	<5.00	130
Copper	<5.00	NA	<5.00	<5.00	7700
Lead	<5.00	NA	<5.00	<5.00	160
Manganese	<5.00	NA	<5.00	<5.00	15000
Mercury	<5.00	NA	<5.00	<5.00	94
Nickel	<5.00	NA	<5.00	<5.00	930
Selenium	<5.00	NA	<5.00	<5.00	460
Strontium	<5.00	NA	<5.00	<5.00	56000
Tin	<5.00	NA	<5.00	<5.00	180000
#3Organic Tin	<5.00	NA	<5.00	<5.00	12
Zinc	<5.00	NA	6.56	12.6	46000
Category	Category 3	Category 3	Category 3	Category 3	
Conclusion	Pass	Pass	Pass	Pass	

- Note:
1. "<" denotes less than
  2. "mg/kg" denotes milligram per kilogram
  3. \* denotes test specimen less than 10 milligram is not required to test the soluble migrated elements according to EN71-3:2013
  4. "NA" denotes Not Applicable
  5. "#1" denotes Chromium III and ChromiumVI are determined by screening of total Chromium
  6. "#2" denotes ChromiumVI is determined by UV-VIS Spectrometry and Chromium III is calculated as total Chromium
  7. "#3" denotes Organic Tin is determined by screening of total Tin

Remark: The surface coating samples with sample weight less than 100 mg, were assumed to be 100 mg in calculation.

Actual weight of sample (s)used for analysis which are less than 100 mg.

Sample 009 = 10.3 mg

Sample 011 = 38.0 mg



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Migration Elements	Result [mg/kg]				Maximally Permissible Limits [mg/kg]
	Sample 013	Sample 014	Sample 015	Sample 016*	Category 3
Aluminum	<5.00	<5.00	7.19	NA	70000
Antimony	<5.00	<5.00	<5.00	NA	560
Arsenic	<2.5	<2.5	<2.5	NA	47
Barium	<5.00	<5.00	<5.00	NA	18750
Boron	<5.00	<5.00	<5.00	NA	15000
Cadmium	<5.00	<5.00	<5.00	NA	17
Total Chromium	<0.2	<0.2	<0.2	NA	#1Cr(III): 460 #1Cr(VI): 0.2
Cobalt	<5.00	<5.00	<5.00	NA	130
Copper	<5.00	<5.00	<5.00	NA	7700
Lead	<5.00	<5.00	<5.00	NA	160
Manganese	<5.00	<5.00	<5.00	NA	15000
Mercury	<5.00	<5.00	<5.00	NA	94
Nickel	<5.00	<5.00	<5.00	NA	930
Selenium	<5.00	<5.00	<5.00	NA	460
Strontium	<5.00	37.8	<5.00	NA	56000
Tin	<5.00	<5.00	<5.00	NA	180000
#3Organic Tin	<5.00	<5.00	<5.00	NA	12
Zinc	<5.00	<5.00	99.5	NA	46000
Category	Category 3	Category 3	Category 3	Category 3	
Conclusion	Pass	Pass	Pass	Pass	

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Migration Elements	Result [mg/kg]		Maximally Permissible Limits [mg/kg]
	Sample 017	Sample 018	Category 3
Aluminum	<5.00	<5.00	70000
Antimony	<5.00	<5.00	560
Arsenic	<2.5	<2.5	47
Barium	<5.00	<5.00	18750
Boron	<5.00	<5.00	15000
Cadmium	<5.00	<5.00	17
Total Chromium	<0.2	<0.2	#1Cr(III): 460 #1Cr(VI): 0.2
Cobalt	<5.00	<5.00	130
Copper	<5.00	<5.00	7700
Lead	<5.00	<5.00	160
Manganese	<5.00	<5.00	15000
Mercury	<5.00	<5.00	94
Nickel	<5.00	<5.00	930
Selenium	<5.00	<5.00	460
Strontium	<5.00	<5.00	56000
Tin	<5.00	<5.00	180000
#3Organic Tin	<5.00	<5.00	12
Zinc	7.30	9.44	46000
Category	Category 3	Category 3	
Conclusion	Pass	Pass	

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