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Client: GORS ENGINEERING BVBA
Emiel Neiryneckstraat 36, 8870 IZEGEM, BELGIUM

**Identification/
Model No(s):** 6mm bio plastic ball
bio 0.25, bio tracer 0.25, bio 0.30, bio 0.36, bio 0.45

Sample Receiving date: 2017-09-05

Testing Period: 2017-09-07 - 2017-09-11

Delivery condition: Apparent good, Samples tested as received

Test Specification: **Test result:**

Customer's requirement:

1. EN 71 - 3 : 2013 + A1 : 2014 Migration of 19 Elements PASS

Other information:

Country of Origin: China

Test Location: TÜV Rheinland (Shanghai) Co., Ltd.

TÜV Building I, No.177, Lane 777, West Guangzhong Road Zhabei District, Shanghai, China

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



2017-09-12 Xie Xianqiang / Department manager

Date *Name/Position*

*Test result is drawn according to the kind and extent of tests performed.
This test report relates to the a. m. 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.*

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Material List:

Item: 6mm bio plastic ball
bio 0.25, bio tracer 0.25, bio 0.30, bio 0.36, bio 0.45

Material No.	Material	Color	Location
M001	Plastic	white	refer to photo
M002	Plastic	off white	refer to photo
M003	Plastic	beige	refer to photo
M004	Plastic	mint	refer to photo
M005	Plastic	white	refer to photo

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1. EN71-3:2013+A1:2014 Migration of 19 Elements - with reference to 2009/48/EC and its amendments

Test Method: with reference to EN71-3:2013+A1:2014, for inorganic elements, analyzed by ICP-OES or ICP-MS.

3) For scraped-off toy materials:

				Test No.	T001	T002	T003
				Material No.	M001	M002	M003
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result	
Aluminium (Al)	mg/kg	10	70000	16.4	n.d.	11.6	
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.	
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.	
Barium (Ba)	mg/kg	2.5	18750	402	220	195	
Boron (B)	mg/kg	10	15000	n.d.	n.d.	n.d.	
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	1.2	
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.	
Chromium (III) (Cr (III))§	mg/kg	0.15	460	-	-	-	
Chromium (VI) (Cr (VI))§	mg/kg	0.15	0.2	-	-	-	
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.	
Copper (Cu)	mg/kg	2.5	7700	n.d.	3.2	7.8	
Lead (Pb) †	mg/kg	2.5	160	n.d.	32.0	91.9	
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.	
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.	
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	7.2	
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	70.0	
Strontium (Sr)	mg/kg	2.5	56000	59.8	6.3	7.0	
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.	
Organic Tin^	mg/kg	1.0	12	-	-	-	
Zinc (Zn)	mg/kg	10	46000	10.2	n.d.	31.7	

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				Test No.	T004	T005
				Material No.	M004	M005
Test Parameter	Unit	RL	Regulatory Requirement	Result	Result	Result
Aluminium (Al)	mg/kg	10	70000	n.d.	n.d.	n.d.
Antimony (Sb)	mg/kg	5	560	n.d.	n.d.	n.d.
Arsenic (As)	mg/kg	5	47	n.d.	n.d.	n.d.
Barium (Ba)	mg/kg	2.5	18750	306	334	334
Boron (B)	mg/kg	10	15000	n.d.	n.d.	n.d.
Cadmium (Cd)	mg/kg	1	17	n.d.	n.d.	n.d.
Chromium (Cr)	mg/kg	0.15	-	n.d.	n.d.	n.d.
Chromium (III) (Cr (III))§	mg/kg	0.15	460	-	-	-
Chromium (VI) (Cr (VI))§	mg/kg	0.15	0.2	-	-	-
Cobalt (Co)	mg/kg	2.5	130	n.d.	n.d.	n.d.
Copper (Cu)	mg/kg	2.5	7700	n.d.	n.d.	n.d.
Lead (Pb) †	mg/kg	2.5	160	n.d.	n.d.	n.d.
Manganese (Mn)	mg/kg	2.5	15000	n.d.	n.d.	n.d.
Mercury (Hg)	mg/kg	2.5	94	n.d.	n.d.	n.d.
Nickel (Ni)	mg/kg	2.5	930	n.d.	n.d.	n.d.
Selenium (Se)	mg/kg	10	460	n.d.	n.d.	n.d.
Strontium (Sr)	mg/kg	2.5	56000	31.0	18.8	18.8
Tin (Sn)	mg/kg	1.0	180000	n.d.	n.d.	n.d.
Organic Tin^	mg/kg	1.0	12	-	-	-
Zinc (Zn)	mg/kg	10	46000	36.4	n.d.	n.d.

- Abbreviation:**
- n.d. = Not Detected (< RL)
 - RL = Reporting Limit
 - mg/kg denotes milligram per kilogram
 - § denotes Cr(III) and Cr(VI) are not necessary to be determined when the Combined Chromium concentration value is less than the requirement
 - ^ denotes Organic tin are not necessary to be determined when the Tin concentration is less than calculated limit (3.9 mg/kg) or the components were confirmed to be pure metal

Remark:

- † According to Council Directive (EU) 2017/738, the amendment of Directive 2009/48/EC, migration limits for lead in i) dry, brittle, powder-like or pliable toy materials; ii) liquid or sticky toy materials; and iii) scraped-off toy materials will be revised to 2.0 mg/kg, 0.5 mg/kg and 23 mg/kg, respectively. Effective from 28 October 2018.

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Sample Photo



- END -