

Report For:	ERA Group Ltd. 2500 Guenette	Laboratory #:	896740-22
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Attention: Specimen:	Gilad Ben-Or Consumer Products		

# **CERTIFICATE OF ANALYSIS**

Five (5) children's product specimens were submitted for representative testing to be analyzed as per ASTM F963-17, for several parameters and for Phthalate Content, in order to determine compliance with the US Consumer Products Safety Improvement Act of 2008 and the Toys Regulations (SOR/2011-17) of the Canada Consumer Product Safety Act (CCPSA). The submitted specimens were identified as follows:



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## **STANDARDS**

US Consumer Products Safety Improvement Act of 2008:	Section 101 Products containing Lead Section 106 Mandatory Toy Safety Standards Section 108 Products containing Phthalates
ASTM F963-17	Standard Consumer Safety Specification for Toy Safety
Canada Consumer Product Safety Act:	Toys Regulations (SOR/2011-17)

# TEST METHODS

CPSC-CH-E1002-08.3	Standard Operating Procedure for Determining Total Lead (Pb) in Nonmetal Children's Products
CPSC-CH-C1001-09.4	Standard Operating Procedure for Determination of Phthalates
16 CFR 1500.44	Method for Determining Extremely Flammable and Flammable Solids
16 CFR 1500.48	Technical Requirements for Determining a Sharp Point in Toys and Other Articles Intended for Use by Children Under 8 Years of Age
16 CFR 1500.49	Technical Requirements for Determining a Sharp Metal or Glass Edge in Toys and Other Articles Intended for Use by Children Under 8 Years of Age
16 CFR 1501	Method for Identifying Toys and Other Articles Intended for Use by Children Under 3 Years of Age which Present Choking, Aspiration, or Ingestion Hazards Because of Small Parts.
Health Canada Method M00.1	Small Components (Effective 2019-07-02)
Health Canada Method M00.2	Sharp Edges (Effective 2021-04-22)
Health Canada Method M00.3	Sharp Points (Effective 2021-01-15)
Health Canada Method M01.1	Reasonably Foreseeable Use - Toys (Effective 2019-02-18)



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### Laboratory # 896740-22 ERA Group Ltd.

#### PHYSICAL/MECHANICAL

As per ASTM F963-17 Sections 4.5 - 4.39

		Compliant (Pass/Fail)			
<u>ASTM</u> <u>F963-17</u> <u>Section</u>	Test	Specimen <u>#1</u>	Specimen <u>#2</u>	Specimen <u>#5</u>	
4.5	Sound Producing Toys	N/A	N/A	N/A	
4.6	Small Objects	Pass	Pass	Pass	
4.7	Accessible Edges	Pass	Pass	Pass	
4.8	Projections	N/A	N/A	N/A	
4.9	Accessible Points	Pass	Pass	Pass	
4.10	Wires or Rods	N/A	N/A	N/A	
4.11	Nails and Fasteners	N/A	Pass	N/A	
4.12	Plastic Film	N/A	N/A	N/A	
4.13	Folding Mechanisms and Hinges	N/A	N/A	N/A	
4.14	Cords, Straps, and Elastics	N/A	N/A	N/A	
4.15	Stability and Over-Load Requirements	Pass	N/A	Pass	
4.16	Confined Spaces	N/A	N/A	N/A	
4.17	Wheels, Tires, and Axles	N/A	N/A	N/A	
4.18	Holes, Clearance, and Accessibility of Mechanisms	N/A	N/A	N/A	
4.19	Simulated Protective Devices	N/A	N/A	N/A	
4.20	Pacifiers	N/A	N/A	N/A	
4.21	Projectile Toys	N/A	N/A	N/A	
4.22	Teethers and Teething Toys	N/A	N/A	N/A	
4.23	Rattles	N/A	N/A	N/A	
4.24	Squeeze Toys	N/A	N/A	N/A	
4.25	Battery-Operated Toys	N/A	N/A	N/A	
4.26	Toys Intended to be Attached to a Crib or Playpen	N/A	N/A	N/A	
4.27	Stuffed and Beanbag Type Toys	N/A	N/A	N/A	
4.28	Stroller and Carriage Toys	N/A	N/A	N/A	
4.29	Art Materials	N/A	N/A	N/A	
4.30	Toy Gun Marking	N/A	N/A	N/A	
4.31	Balloons	N/A	N/A	N/A	
4.32	Certain Toys with Spherical Ends	N/A	N/A	N/A	
4.33	Marbles	N/A	N/A	N/A	
4.34	Balls	N/A	N/A	N/A	
4.35	Pompoms	N/A	N/A	N/A	
4.36	Hemispheric Shaped Objects	N/A	N/A	N/A	
4.37	Yo Yo Elastic Tether Toys	N/A	N/A	N/A	
4.38	Magnets	N/A	N/A	N/A	
4.39	Jaw Entrapment in Handles and Steering Wheels	N/A	Pass	N/A	

\*Note: Results for ASTM F963-17 for Specimen #2 also represent Specimens #3 and #4.



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#### PHYSICAL/MECHANICAL CONT'D

# Testing Parameters (6+ Years) (Specimens #1, #5):

Impact Test	16 CFR 1500.51	Tip-over Test (3 times	s) Asset #1798
Torque Test	16 CFR 1500.53	0.45 Nm	Asset# 1446
Tension Test	16 CFR 1500.53	66.8 N	Asset #1108
Compression Test	16 CFR 1500.53	133.5 N	Asset #1108

#### Testing Parameters (6+ Years) (Specimens #2, #3, #4):

Drop Test (4 times) Impact Test 16 CFR 1500.51 Asset #1798 **Torque Test** 16 CFR 1500.53 0.45 Nm Asset# 1446 **Tension Test** 16 CFR 1500.53 66.8 N Asset #1108 Compression Test 16 CFR 1500.53 133.5 N Asset #1108

#### **FLAMMABILITY**

The submitted specimens were analyzed in accordance with 16 CFR 1500.44

Specimen #	Burn Rate (mm/s)	<u>Requirement</u> (mm/s)	<u>Pass / Fail</u>
1	1.0	2.5 Max.	PASS
2	0.5	2.5 Max.	PASS
3	0.6	2.5 Max.	PASS
4	0.6	2.5 Max.	PASS
5	1.1	2.5 Max.	PASS

## RESULTS



### TOTAL HEAVY ELEMENT CONTENT SCREENING

The submitted specimen was analyzed in accordance with ASTM F963-17 section 4.3.5 as per section 8.3.1 using test method CPSC-CH-E1001-08.3 and CPSC-CH-E1002-08.3.

SPECIMEN #	Total Antimony (ppm)	Total Arsenic (ppm)	Total Barium (ppm)	Total Cadmium (ppm)	Total Chromium (ppm)	Total Lead (ppm)	Total Mercury (ppm)	Total Selenium (ppm)	RESULT <u>(Pass/Fail)</u>
Composite of: 1)Green sled substrate 5) Blue sled Substrate	N.D. (<1)	N.D. (<1)	21	N.D. (<1)	N.D. (<1)	N.D. (<10)	N.D. (<1)	N.D. (<1)	Pass
Composite of: 2a)Red shovel substrate 3a)Pink shovel substrate 4a)Blue shovel substrate	N.D. (<1)	N.D. (<1)	13	N.D. (<1)	N.D. (<1)	N.D. (<10)	N.D. (<1)	N.D. (<1)	Pass
2d) ERA Label	N.D. (<1)	N.D. (<1)	59	N.D. (<1)	N.D. (<1)	N.D. (<10)	N.D. (<1)	N.D. (<1)	Pass
Composite of: 2b)Metal shaft 2c)Metal pin	N.D. (<1)	22	86	N.D. (<1)	215	N.D. (<10)	N.D. (<1)	N.D. (<1)	Pass
2e) Black shaft coating	N.D. (<1)	N.D. (<1)	N.D. (<1)	N.D. (<1)	N.D. (<1)	N.D. (<10)	N.D. (<1)	N.D. (<1)	Pass
ASTM F963-17 Requirement Maximum- Soluble Elements in Surface Coatings & Substrates	60	25	1000	75	60	90	60	500	-
ASTM F963-17 Requirement Maximum- Total Lead in Surface Coatings	N/A					90	N	/Α	-
ASTM F963-17 Requirement Maximum- Total Lead in Substrates	N/A					100	N	/A	-

N.D. = Not detected.

\*Note: Results for Specimen #2b also represent specimens #3 and #4.

\*<u>Note</u>: Results for Specimen #2c also represent specimens #3 and #4.

\*<u>Note</u>: Results for Specimen #2d also represent specimens #3 and #4.

\*Note: Results for Specimen #2e also represent specimens #3 and #4.



# SOLUBLE HEAVY ELEMENTS CONTENT

ASTM F963-17 section 4.3.5 (section 8.3.5.5)

#### RESULTS

SPECIMEN #	Total Antimony (ppm)	Total Arsenic (ppm)	Total Barium (ppm)	Total Cadmium (ppm)	Total Chromium (ppm)	Total Lead (ppm)	Total Mercury (ppm)	Total Selenium (ppm)	RESULT <u>(Pass/Fail)</u>
2b)Metal shaft	N.D. (<1)	N.D. (<1)	N.D. (<1)	N.D. (<1)	10	N.D. (<10)	N.D. (<1)	N.D. (<1)	Pass
2c)Metal pin	N.D. (<1)	N.D. (<1)	53	N.D. (<1)	3	N.D. (<10)	N.D. (<1)	N.D. (<1)	Pass
ASTM F963-17 Requirement Maximum-Soluble Elements in Surface Coatings & Substrates	60	25	1000	75 200 (metals)	60	90	60	500	-

N.D. = Not detected.

\*<u>Note</u>: Results for Specimen #2b also represent specimens #3 and #4. \*<u>Note</u>: Results for Specimen #2c also represent specimens #3 and #4.



# PHTHALATE CONTENT

The submitted specimens were extracted in Tetrahydrofuran (THF) solvent, followed by cyclohexane, and then analyzed using a Gas Chromatograph equipped with a Mass Detector as per CPSC-CH-C1001-09.4.

<u>Specimen</u>	Phthalate Content							Result			
#	DIBP	DBP	DPENP	DHEXP	BBP	DEHP	DCHP	DINP	DIDP	DnOP	Result
Composite of: 5) Blue sled substrate 4a) Blue shovel substrate	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.060%)	N.D. (<0.060%)	N.D. (<0.015%)	Pass
Composite of: 2a) Red shovel substrate 3a) Pink shovel substrate	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.060%)	N.D. (<0.060%)	N.D. (<0.015%)	Pass
1) Green sled substrate	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.060%)	N.D. (<0.060%)	N.D. (<0.015%)	Pass
Composite of: 2e) Black paint 2d) ERA label	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.015%)	N.D. (<0.060%)	N.D. (<0.060%)	N.D. (<0.015%)	Pass
	Limit as per Phthalates Section 108 of the Consumer Product Safety Improvement Act of 2008 (CPSIA) and										

Canada Consumer Product Safety Act (CCPSA). 0.1 (% w/w), max.

\*<u>Note</u>: Results for Specimen #2e also represent specimens #3 and #4. \*<u>Note</u>: Results for Specimen #2d also represent specimens #3 and #4.

#### **Abbreviations**

DIBP	di-iso-butyl phthalate	DEHP	di-(2-ethylhexyl) phthalate
DBP	dibutyl phthalate	DCHP	di-cyclo-hexyl phthalate
DPENP	di-n-pentyl phthalate	DINP	diisononyl phthalate
DHEXP	di-n-hexyl phthalate	DIDP	diisodecyl phthalate
BBP	benzyl butyl phthalate	DnOP	di-n-octyl phthalate



# TOYS REGULATIONS (SOR/2011-17)

# RESULTS

			RESULTS				
	Mechanical Hazards	<u>Specimen</u> <u>#1</u>	<u>Specimen</u> <u>#2</u>	<u>Specimen</u> <u>#5</u>			
Small Parts section 7(1)	A toy that is likely to be used by a child of less than three years of age must not contain a part that is meant to be separable or may become separated with reasonably foreseeable use of the toy and that can be totally enclosed in the small parts cylinder illustrated in Schedule 1 using a force of not more than 4.45N.	Pass	Pass	Pass			
Metal edges section 8	A toy's exposed metal edges must be folded back or sprayed with or dipped in paint or otherwise treated so that all sharpness and burrs are eliminated.	N/A	N/A	N/A			
Wire Frames section 9	A wire frame or structure that is embedded in a toy must have its wire ends covered, turned in or turned back so that no sharp ends become exposed with reasonably foreseeable use of the toy.	N/A	N/A	N/A			
Plastic Edges section 10	A part of a toy that is made of plastic and that could, when broken, have exposed sharp edges must meet at least one of the following requirements: (a) it must be sufficiently thick to resist breakage with reasonably foreseeable use of the toy; or (b) it must be made of inherently tough materials, if the part is necessarily thin because of the toy's function	Pass	Pass	Pass			
Wood section 11	A toy's exposed wooden surfaces, edges and corners must be smoothly finished.	N/A	N/A	N/A			
Glass section 12	A toy's exposed wooden surfaces, edges and corners must be smoothly finished.	N/A	N/A	N/A			
Fasteners section 13(1)	A fastener that is used in the construction of a toy must not, because of its type, size or manner of use, cause personal injury with reasonably foreseeable use of the toy.	N/A	Pass	N/A			



Mechanical Hazards		<u>RESULTS</u>		
		<u>Specimen</u> #1	<u>Specimen</u> #2	<u>Specimen</u> #5
Fasteners section 13(2)	The following fasteners must meet the following requirements: (a) nails and staples must be properly attached; (b) flat head or oval-head wood screws of the countersunk-head type must be properly countersunk; (c) wood screws must be free of exposed burrs; (d) fasteners for use in upholstery or similar fasteners must be properly attached and of a type that, if exposed, would not be a hazard; and (e) threaded bolts must be protected by acorn or similar nuts or protective caps, unless the bolts are so placed that they protrude into a protected area where contact with the threaded ends is not likely to occur.	N/A	Pass	N/A
Safety stops or locking devices section 14	A toy's folding mechanism, bracket or bracing must have a safety stop or a locking device to prevent the toy's unintentional collapse.	N/A	N/A	N/A
Spring-wound driving mechanisms section 15	A spring-wound driving mechanism that is an integral part of a toy — other than a construction set — and that could injure a child's finger must meet all of the following requirements: (a) its moving parts must be enclosed so that they cannot be touched with reasonably foreseeable use of the toy; (b) its outer case must be able to withstand reasonable abuse if damage to the case would cause the mechanism to be exposed; (c) in the case of a toy with a non-detachable winding key, the key must be of a shape and size that does not allow a child's finger to become caught in it; and (d) in the case of a toy with a detachable key or starting handle, the clearance space between the detachable key or starting handle, when it is in place, and the rest of the toy must be less than 2 mm (1/16 inch) or more than 10 mm (3/8 inch).	N/A	N/A	N/A



Mechanical Hazards		<u>RESULTS</u>		
		<u>Specimen #1</u>	Specimen #2	Specimen #5
Projectile Components section 16	The projectile component of a toy — other than a rocketry component — that is capable of causing a puncture wound must have a rubber tip or other durable fitting placed on its leading end that is able to withstand a pulling force of 44.5 N (10 pounds).	N/A	N/A	N/A
Enclosures section 17	A toy with both of the following characteristics must have holes of sufficient size and number in each of two or more adjacent sides to prevent the suffocation of a child that is enclosed in the toy: (a) it is large enough for a child to enter or be placed inside; and (b) it has an opening that can be closed by a lid or door.	N/A	N/A	N/A
Stability section 18	A stationary toy that is intended to bear the weight of a child must stand level and firm when it is used.	Pass	N/A	Pass

\*Note: Results for Toys Regulations (SOR/2011-17) for Specimen #2 also represent Specimens #3 and #4.



### **REASONABLY FORESEEABLE USE – TOYS**

Health Canada Method M00.1 Health Canada Method M00.2 Health Canada Method M00.3 Health Canada Method M01.1 Small Components (Effective 2019-07-02) Sharp Edges (Effective 2021-04-22) Sharp Points (Effective 2021-01-15) Reasonably Foreseeable Use - Toys (Effective 2019-02-18)

Mechanical Hazards		<u>RESULTS</u>			
		Specimen #1	Specimen #2	Specimen #5	
<u>Small</u> <u>Components</u>	Description of product that was totally enclosed in the Small Parts Cylinder. If the product was totally enclosed with or without force or manipulation. If force or manipulation was required, include the force and the type of manipulation. The section of the test method the sharp edges were produced/ observed.	No small components were found before or after reasonable foreseeable use	No small components were found before or after reasonable foreseeable use	No small components were found before or after reasonable foreseeable use	
<u>Sharp Edges</u>	The location of any sharp edges. If any sharp edges cut the test tape and if so, the length of the cut. The section of the test method the sharp edges were produced/ observed.	No sharp edges were found before or after reasonable foreseeable use	No sharp edges were found before or after reasonable foreseeable use	No sharp edges were found before or after reasonable foreseeable use	
<u>Sharp</u> Points	The location on the product of any projections, corners and any surface deformations that activated the sharp point tester.	No sharp points were found before or after reasonable foreseeable use	No sharp points were found before or after reasonable foreseeable use	No sharp points were found before or after reasonable foreseeable use	
<u>Drop Test</u>	Drop platform height. The drop orientations with photographs if necessary. If batteries were included during the drop test (if necessary). Any damage to the product. Any small components, sharp edges observed during drop testing.	0.909 m height using various orientations. No Damage, No small components, sharp edges or sharp points were observed after test.	0.909 m height using various orientations. No Damage, No small components, sharp edges or sharp points were observed after test.	0.909 m height using various orientations. No Damage, No small components, sharp edges or sharp points were observed after test.	
<u>Push/Pull</u> <u>Test</u>	The location of any push/pulls that caused damage or separated a component. The peak force used to separate the component. Any small components, sharp edges observed during the push/pull tests.	No Damage. No small components, sharp edges or sharp points were observed after test.	No Damage. No small components, sharp edges or sharp points were observed after test.	No Damage. No small components, sharp edges or sharp points were observed after test.	

\*Note: Results for Reasonably Foreseeable Use for Specimen #2 also represent Specimens #3 and #4.



> Laboratory # 896740-22 ERA Group Ltd.

# **Testing Parameters** (6+ years)

Drop Test	
Pull Test/ Push Test	
Small Components	
Sharp Edges	
Sharp Points	

Method M01.1 Method M01.1 Method M00.1 Method M00.2 Method M00.3 0.909m, 4 drops 42.5 N Asset #1799 Asset #1570 Asset #1538 Asset #1536 Asset #1535