



PROLUME LIMITED AND BIOTOY LLC

Technical Report: (8814)346-0010

Jan 6, 2015

Date Received: Dec 12, 2014

Page 1 of 14

PROLUME LIMITED AND BIOTOY LLC
SUITE 1404, TUNG WAI COMMERCIAL BUILDING,
109-111 GLOUCESTER ROAD, WAN CHAI, HK

Sample Description: SPLASHLIGHT TOY

- (1.) RED
- (2.) BLUE
- (3.) FUCHSIA

Vendor: PROLUME ASIA LIMITED

Sample Size: N/A

Manufacturer: PROLUME ASIA LIMITED

Style No(s): N/A

Buyer: N/A

SKN/SKU No.: 5148931301

Labeled Age Grade: SUITABLE FOR AGES 8+

PO No.: N/A

Appropriate Age Grade: NOT REQUESTED

Ref #: N/A

Client Specified Age Grade: 8+

Country of Origin: 中国广东省

Tested Age Grade: OVER 8 YEARS OF AGE

Country of Destination: 北美, 欧洲, 澳大利亚 & 新西兰, 中国, 日本

UPC Code: N/A

Assortment No.: N/A

Test Starting Date: DEC 12, 2014

Test Finished Date: JAN 6, 2015

EXECUTIVE SUMMARY:

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

- The labeling requirements of ASTM F963-11, "Standard consumer safety specification for toy safety".
- The mechanical hazards requirements of ASTM F963-11, "Standard consumer safety specification for toy safety".
- The flammability requirements of ASTM F963-11, "Standard consumer safety specification on toy safety", Section 4.2 and 16 CFR 1500.3(c)(6)(vi), "Flammable solid".

To be continued

BUREAU VERITAS SHENZHEN CO.,LTD
DONGGUAN BRANCH

BUREAU VERITAS SHENZHEN CO.,LTD
DONGGUAN BRANCH

Harvey Xue
Assistant Manager, Analytical Lab

Kay Liu
Manager, Toys Lab

RT/KC

REMARK

If there are questions or concerns on this report, please contact the following persons:

Report Enquiry: (86) 0769 85935656 Ext. 8819 CPSAnalytical.DG@cn.bureauveritas.com

Business Contact: (86) 0769 85893595

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



PROLUME LIMITED AND BIOTOY LLC
Technical Report: **(8814)346-0010**

Jan 6, 2015

Page 2 of 14

EXECUTIVE SUMMARY:

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

- The total lead content in surface coating requirements of ASTM F963-11, "Standard consumer safety specification for toy safety", Section 4.3.5.1(1).
- The soluble heavy metals content in surface coating requirements of ASTM F963-11, "Standard Consumer Safety Specification for Toy Safety," Section 4.3.5.1(2).
- The total lead content of 90ppm requirements of 16 CFR 1303, "Ban of lead-containing paint and certain consumer products bearing lead-containing paint" as mandated by Congress in section 101(f) of the Consumer Products Safety Improvement Act (CPSIA) of 2008, Public Law 110-314.
- The total lead content of 100ppm requirements in substrate materials (Consumer Products Safety Improvement Act (CPSIA) of 2008).
- The BBP, DBP & DEHP content requirements of the Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(a) Prohibition On Sale of Certain Products Containing Specified Phthalates.
- The DNOP, DIDP & DINP content requirements of the Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(b)(1) Prohibition On Sale of Certain Products Containing Specified Phthalates.
- The heavy metals content in packaging requirements of Model Toxics Legislation of the Toxics in Packaging Clearinghouse, TPCH (formerly the Coalition of Northeastern Governors, CONEG).

Note: At the request of the client, the sample(s) was evaluated for use by children 8+.

Note: The sample(s) was not evaluated to the Normal Use testing requirements specified in ASTM F963-11, Section 8.5. It is the responsibility of the manufacturer, vendor or distributor to conduct tests that will simulate normal use conditions. These tests shall ensure that hazards are not generated through normal wear and deterioration of the sample(s). These tests shall also simulate the normal play mode of the toy and to simulate the expected mode of use of the particular toy. The tests shall be conducted in an expected use environment. These normal use tests shall simulate the intended use of the toy based on its estimated lifetime.

Note: According to Note 3 of ASTM F963-11, "Standard consumer safety specification on toy safety", toys intended for children over the age of six years and their parts are not subject to heavy metals content in substrate requirement of ASTM F963-11 Section 4.3.5.2(2)(b). Therefore, the samples are exempt from such requirement.



PROLUME LIMITED AND BIOTOY LLC
Technical Report: **(8814)346-0010**

Jan 6, 2015
Page 3 of 14

RESULTS:

APPROPRIATE AGE GRADE DETERMINATION

The Appropriate Age Grade is determined with reference to the Age Determination Guidelines of the Consumer Product Safety Commission (CPSC); and the ASTM F963-11, "Standard Consumer Safety Specification on Toy Safety". Annex A1

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.



RESULTS:

PHYSICAL AND MECHANICAL HAZARDS (ASTM F963-11)

Section	Requirement	Result
4.1	Material Quality	M
4.3.7	Stuffing Materials	N/A
4.5	Sound-Producing Toys	N/A
4.6	Small Objects	N/A
4.7	Accessible Edges	N/A
4.8	Projections	N/A
4.9	Accessible Points	N/A
4.10	Wires and Rods	N/A
4.11	Nails and Fasteners	N/A
4.12	Plastic Film	N/A
4.13	Folding Mechanisms and Hinges	N/A
4.14	Cords, Straps and Elastics	N/A
4.15	Stability and Over-Load Requirements	N/A
4.16	Confined Spaces	N/A
4.17	Wheels, Tires, and Axles	N/A
4.18	Holes, Clearances and Accessibility of Mechanisms	N/A
4.19	Simulated Protective Devices	N/A
4.20	Pacifiers	N/A
4.21	Projectile Toys	N/A
4.22	Teethers and Teething Toys	N/A
4.23	Rattles	N/A
4.24	Squeeze Toys	N/A
4.25	Battery-Operated Toys (exclude section 4.25.10 Battery-powered ride-on toys)	N/A
4.26	Toys Intended to be Attached to a Crib or Playpen	N/A
4.27	Stuffed and Beanbag-Type Toys	N/A
4.30	Toy Gun Marking	N/A
4.32	Certain Toys with Nearly Spherical Ends	N/A
4.34	Small Balls	N/A
4.35	Pompoms	N/A
4.36	Hemispheric-Shaped Objects	N/A
4.37	Yo Yo Elastic Tether Toys	N/A
4.38	Magnets	N/A
4.39	Jaw Entrapment in Handles and Steering Wheels	N/A

M = Meet NM = Not Meet N/A = Not Applicable R = Refer to Comment Section



RESULTS:

LABELING AND INSTRUCTIONAL REQUIREMENT (ASTM F963-11)

Section	Requirement	Result
5.4 & 5.3	Aquatic Toys	N/A
5.5 & 5.3	Crib and Playpen Toys	N/A
5.6 & 5.3	Mobiles	N/A
5.7 & 5.3	Stroller and Carriage Toys	N/A
5.8 & 5.3	Toys Intended to be Assembled by an Adult	N/A
5.9 & 5.3	Simulated Protective Devices	N/A
5.10 & 5.3	Toys with Functional Sharp Edges or Sharp Points	N/A
5.11	Small Objects, Small Balls, Marbles and Balloons (16 CFR 1500.19)	N/A
5.12	Toy Caps (16CFR1500.86)	N/A
5.13	Art Materials (16 CFR 1500.14(b)(8))	N/A
5.15	Battery-Operated Toys (exclude 5.15.1)	N/A
5.15.1 & 5.3	Battery-Powered Ride-On Toys	N/A
5.16	Promotional Materials	M
5.17 & 5.3	Magnets	N/A
6.1	Definition and Description	M
6.2	Crib and Playpen Toys	N/A
6.3	Mobiles	N/A
6.4 & 5.3	Toys Intended to be Assembled by an Adult	N/A
6.5.1-2	Battery-Operated Toys	N/A
6.5.3	Battery-Powered Ride-On Toys	N/A
6.6	Toys in Contact with Food	N/A
7.1	Producer's Name and Address	M
7.2	Battery-Powered Ride-on Toys	N/A

M = Meet NM = Not Meet N/A = Not Applicable R = Refer to Comment Section

FLAMMABILITY (16 CFR SECTION 1500.3(c)6)(vi))

Requirement	Test Method Reference	Findings
Burn rate no greater than 0.1 of an inch per second	16 CFR 1500.44	Did not ignite.



Tested Component(s) Description List:

Test Item(s)	Item / Component Description(s)	Location(s)	Style(s)
I001	Red coating	Body	1
I002	Blue coating	Body	2
I003	Fuchsia coating	Body	3
I004	Red plastic	Body	1
I005	Blue plastic	Body	2
I006	Fuchsia plastic	Body	3
I007	Transparent red plastic	Muzzle & connector	1
I008	Transparent blue plastic	Muzzle & connector	2
I009	Transparent fuchsia plastic	Muzzle, air inlet, holder of trigger & connector of tube	3
I010	White plastic	Body	1-3
I011	Transparent plastic with light yellow glue	Holder of muzzle	1-3
I012	Beige soft plastic	Tube	1-3
I013	Silvery metal	Screw	1-3
I014	Clear laminated multi-color printed white/brown paper board with adhesive	Color box	1-3
I015	Transparent plastic	Inner box	1-3



RESULTS:

Total Lead Content in Surface Coating – ASTM International Standard ASTM F963-11, Section 4.3.5.1(1)

Test Method : ASTM International Standard ASTM F963-11, Section 8.3.1 and Annex A7.

Maximum Allowable Limit :	90 mg/kg
---------------------------	----------

Test Item(s)	Result	Unit	Conclusion
	Total Lead (Pb)		
I001	ND	mg/kg	PASS
I002	ND	mg/kg	PASS
I003	ND	mg/kg	PASS

Note / key:

ND = Not detected
mg/kg = milligram(s) per kilogram
Detection Limit (mg/kg) : 10



RESULTS:

Soluble Heavy Metals Content in Surface Coating – ASTM International Standard ASTM F963-11, Section 4.3.5.1(2)

Test Method : ASTM International Standard ASTM F963-11, Section 8.3.2 to 8.3.4.

Analyte	As	Ba	Cd	Cr	Hg	Pb	Sb	Se
Max. Limit (mg/kg)	25	1000	75	60	60	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	Conclusion
Test Item(s)	Result (mg/kg)								(g)	
I001	ND	ND	ND	ND	ND	ND	ND	ND	0.0118	PASS
I002	ND	ND	ND	ND	ND	ND	ND	ND	0.0165	PASS
I003	ND	ND	ND	ND	ND	ND	ND	ND	0.0176	PASS

Note / key:

As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium
 Hg = Mercury Pb = Lead Sb = Antimony Se = Selenium
 ND = Not detected g = gram(s) % = percent
 mg/kg = milligram(s) per kilogram
 Detection Limit (mg/kg) : As : 2.5; Ba : 100; Cd : 7.5; Each (Cr, Hg, & Sb) : 6.0; Pb : 9.0; Se : 50



RESULTS:

Total Lead Content in Surface Coating – "Ban of Lead-containing paint and certain consumer products bearing Lead-containing paint", Consumer Product Safety Improvement Act (CPSIA) of 2008

Test Method : U.S. CPSC-CH-E1003-09.1

Maximum Allowable Limit :	90 mg/kg
---------------------------	----------

Test Item(s)	Result	Unit	Conclusion
	Total Lead (Pb)		
I001	ND	mg/kg	PASS
I002	ND	mg/kg	PASS
I003	ND	mg/kg	PASS

Note / key:

- ND = Not detected
- mg/kg = milligram(s) per kilogram
- Detection Limit (mg/kg) : 10



RESULTS:

Total Lead Content in Substrate Materials – Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 101(a)(2)

Test Method : U.S. CPSC-CH-E1002-08.1 and U.S. CPSC-CH-E1001-08.1

Maximum Allowable Limit :	100 mg/kg
---------------------------	-----------

Test Item(s)	Result	Unit	Conclusion
	Total Lead (Pb)		
I004	ND	mg/kg	PASS
I005	ND	mg/kg	PASS
I006	ND	mg/kg	PASS
I007	ND	mg/kg	PASS
I008	ND	mg/kg	PASS
I009	ND	mg/kg	PASS
I010	ND	mg/kg	PASS
I011	ND	mg/kg	PASS
I012	ND	mg/kg	PASS
I013	ND	mg/kg	PASS

Note / key:

- ND = Not detected
- mg/kg = milligram(s) per kilogram
- Detection Limit (mg/kg) : 10



RESULTS:

Phthalates Content in Children's Toys and Childcare Articles – Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(a) Prohibition On Sale of Certain Products Containing Specified Phthalates - BBP / DBP / DEHP Content

Test Method : U.S. CPSC-CH-C1001-09.3

Test Parameter:	BBP	DBP	DEHP	-
Limit (%):	0.1	0.1	0.1	-
Test Item(s)	Result (%)			Conclusion
I001	ND	ND	ND	PASS
I002	ND	ND	ND	PASS
I003	ND	ND	ND	PASS
I004	ND	ND	ND	PASS
I005	ND	ND	ND	PASS
I006	ND	ND	ND	PASS
I007	ND	ND	ND	PASS
I008	ND	ND	ND	PASS
I009	ND	ND	ND	PASS
I010	ND	ND	ND	PASS
I011	ND	ND	ND	PASS
I012	ND	ND	ND	PASS

Note / key:

BBP = Butyl benzyl phthalate DBP = Dibutyl phthalate DEHP = Di(2-ethylhexyl) phthalate
 ND = Not detected % = percent 10000 mg/kg = 1 %
 mg/kg = milligram(s) per kilogram
 Detection Limit (%) : Each 0.005



RESULTS:

Phthalates Content in Children's Toys and Childcare Articles – Consumer Product Safety Improvement Act (CPSIA) of 2008 Sec. 108(b)(1) Prohibition On Sale of Certain Products Containing Specified Phthalates - DNOP / DINP / DIDP Content

Test Method : U.S. CPSC-CH-C1001-09.3

Test Parameter:	DNOP	DINP	DIDP	-
Limit (%):	0.1	0.1	0.1	-
Test Item(s)	Result (%)			Conclusion
I001	ND	ND	ND	PASS
I002	ND	ND	ND	PASS
I003	ND	ND	ND	PASS
I004	ND	ND	ND	PASS
I005	ND	ND	ND	PASS
I006	ND	ND	ND	PASS
I007	ND	ND	ND	PASS
I008	ND	ND	ND	PASS
I009	ND	ND	ND	PASS
I010	ND	ND	ND	PASS
I011	ND	ND	ND	PASS
I012	ND	ND	ND	PASS

Note / key:

DNOP = Di-n-octyl phthalate DINP = Di-iso-nonyl phthalate DIDP = Di-iso-decyl phthalate
 ND = Not detected % = percent 10000 mg/kg = 1 %
 mg/kg = milligram(s) per kilogram
 Detection Limit (%) : Each 0.005



RESULTS:

Heavy Metals Content in Packaging – Model Toxics Legislation of the Toxics in Packaging Clearinghouse (TPCH)

Maximum Allowable Limit:	Sum of Pb, Cd, Hg & CrVI: 100 mg/kg		
Test Item(s)	Result	Unit	Conclusion
	Sum of Pb, Cd, Hg & CrVI		
I014	ND	mg/kg	PASS
I015	ND	mg/kg	PASS

Note / key:

Pb = Lead
 Hg = Mercury
 ND = Not detected
 mg/kg = milligram(s) per kilogram
 Detection Limit (mg/kg) : Sum 20

Cd = Cadmium
 CrVI = Hexavalent Chromium

Remark:

- This legislation was originally drafted by the Source Reduction Council of the Coalition of Northeastern Governors (CONEG).
- Unless further specified, the reported result(s) of Test Item(s) was (were) performed by total metal(s) content analysis through complete decomposition.



**BUREAU
VERITAS**

PROLUME LIMITED AND BIOTOY LLC
Technical Report: **(8814)346-0010**

Jan 6, 2015
Page 14 of 14

RESULTS:



END OF REPORT