

Test Report

Date : 2019-07-26 No. : SP19070302		Page 1 of 7
Applicant	:	Hayes Specialties Corporation 1761 East Genesee Saginaw, MI 48601-2407
Description of Samples	:	One (1) group of submitted samples said to be: RABBIT FOOT KEYCHAIN-ASSORTED COLORS ITEM MUMBER:7442 COUNTRY OF ORIGIN: CHINA AGE GRADING FOR APPLICANT: 3+ AGE GRADING FOR TESTING: 3+
Date Samples Received	:	2019-07-22
Date Tested	:	2019-07-22 to 2019-07-26

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Requirements	Conclusion
 ASTM Standard Consumer Safety Specification For Toy Safety F 963-17 physical and mechanical test flammability test heavy metal test 	Pass
 2. US Consumer Product Safety Improvement Act Total Lead content in paint and surface coating in accordance with Sec. 101 (f) and 16 CFR 1303. Total Lead content in substrate in accordance with Sec. 101(a). Phthalates content in accordance with Sec 108 and 16 CFR 1307. 	Pass
3. The Total Lead content requirements according to the California Proposition 65	Pass
4. The BBP, DBP, DEHP, DnHP, DINP and DIDP content requirements according to the California Proposition 65.	Pass
5. Total cadmium content requirements according to the California Proposition 65.	Pass
6. The Phthalates content requirements according to California Assembly Bill NO.1108	Pass
7. San Francisco Health Code - Phthalates content in accordance with Article 34, sec 34.2	Pass

wer huranel HUANG Qinglai, Ow Authorized Signatory

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130 Huashen Road, Waigaoqiao Pilot Free Trade Zone, Shanghai, China. Zip Code: 200131 Tel: +86 21 5219 8248 Fax: +86 21 5219 8249 Email: shstc@shstc.org Website: www.stc-group.org This report shall not be reproduced unless with prior written approval from STC (Shanghai) Company Limited. Instead of certified for the society, it is used for internal reference only.

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The following test item(s) was/were performed on submitted sample(s) and/or components confirmed by applicant.

Item No.	Component Description
Coating ma	
<u>1</u>	Coating on plastic:golden* ⁴
Plastic ma	
<u>2</u>	Plastic substrate:black
Metal mat	
<u>3</u>	Chain:golden*5
<u>4</u>	Bead:golden*5
<u>5</u>	Buckle:golden*5
Textile ma	
<u>6</u>	Short plush:red
<u>7</u>	Short plush:green
<u>8</u>	Short plush:blue
<u>9</u>	Short plush:light brown
<u>10</u>	Short plush:purple
<u>11</u>	Short plush:pink

Test Results:

1.ASTM Standard Consumer Safety Specification for Toy Safety F 963-17

AGE GRADING:

The sample did not contain an age grade; however, the applicant requested it be tested according to the age grade of 36 months and up.

AGE GRADING FOR TESTING:

36 months and up.

1.1 Mechanical and physical hazards of the submitted sample

Ref.: ASTM F 963-17

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Applicable requirements before and after use and abuse testing:

<u>Applicable</u>		
Section	Description_	Result
4	Safety requirements	
4.1	Material Quality	Pass
4.2	Flammability	$Pass^{*1}$
4.7	Accessible Edges	Pass
4.9	Accessible Points	Pass
5	Labeling Requirements	
5.2	Age grading labeling	*2
7	Producer's Markings	
7.1	Producer's Name and Address	*3

 $*^1$ = Please refer to section 1.2 of this report for details.

*² = See age grading. *³ = There were no producer's/distributor's name and address on the submitted sample.

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Test Results:

Use and abuse testing:

Applicable Section Description Test Condition Normal Use Testing 8.5 8.6 Abuse Testing 8.7 **Drop Tests** 4 drops at 3 ft Torque Tests 4 in-lbs or $\pm 180^{\circ}$ 8.8 8.9 Tension Tests 15 lbs. 8.10 **Compression Tests** 30 lbs.

1.2 Flammability test for solids and soft toys

Ref.: ASTM F963-17 Section 4.2 Method used: FHSA 16CFR 1500.44 Result: pass

> Sample RABBIT KEYCHAIN

Burn rate (in/sec.) DNI

DNI = Did not ignite

Note: In accordance with the FHSA, the burn rate should not be greater than 0.1 in. per second.

1.3 Heavy metal test

Ref.: ASTM F963-17 Section 4.3.5 Method: ASTM F963-17 Section 8.3 Determined by: Inductively Coupled Plasma-Optical Emission Spectrometer & Inductively Coupled Plasma Mass Spectrometry

4.3.5.1 Paint and similar surface-coating

Total lead analysis

 $\frac{\text{Sample}}{\underline{1}}$

<u>Result</u> <10ppm <u>Limit</u> 90ppm

Soluble metals test

 $*^4$ = There were insufficient materials to produce the test portion of 100 mg in one sample. According to the Standard, the quantities of the elements were calculated as if 100 mg of test portion had been used. The actual weight of the specified materials used for analysis were shown below :

 $\underline{1}$ Coating on plastic:golden(30.4mg)

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Test Results:

Soluble selenium <5ppm 500ppm	Soluble lead Soluble cadmium Soluble chromium Soluble barium Soluble antimony Soluble arsenic Soluble mercury Soluble selenium	<u>1</u> <5ppm <5ppm <5ppm <5ppm <5ppm <5ppm <5ppm	Limit 90ppm 75ppm 60ppm 1000ppm 60ppm 500ppm
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4.3.5.2 Toys Substrate Materials

Total lead analysis

Sample	<u>Result</u> 56ppm	<u>Limit</u> 100ppm
$\frac{\overline{3}}{4}$	<10ppm <10ppm	100ppm 100ppm 100ppm
<u>4</u> 5	<10ppm	100ppm

Soluble metals test

 $*^{5}$ = According to requirement of ASTM F963-17, materials such as metal, glass, and ceramic are exempted if they are not small parts.

Soluble lead	2	<u>6</u>	<u>7</u>	<u>8</u>	Limit
Soluble cadmium	<5ppm	<5ppm	<5ppm	<5ppm	90ppm
Soluble chromium	<5ppm	<5ppm	<5ppm	<5ppm	75ppm
Soluble barium	<5ppm	<5ppm	<5ppm	<5ppm	60ppm
Soluble antimony	<5ppm	<5ppm	<5ppm	<5ppm	1000ppm
Soluble arsenic	<2ppm	<2ppm	<2ppm	<2ppm	60ppm
Soluble mercury	<5ppm	<5ppm	<5ppm	<5ppm	500ppm
Soluble selenium	<5ppm	<5ppm	<5ppm	<5ppm	500ppm
Soluble lead Soluble cadmium Soluble chromium Soluble barium Soluble antimony Soluble arsenic Soluble mercury Soluble selenium	<u>9</u> <5ppm <5ppm <5ppm <5ppm <2ppm <5ppm <5ppm	<u>10</u> <5ppm <5ppm <5ppm <5ppm <2ppm <5ppm <5ppm	<u>11</u> <5ppm <5ppm <5ppm <5ppm <2ppm <5ppm <5ppm	<u>Limit</u> 90ppm 75ppm 60ppm 1000ppm 60ppm 25ppm 60ppm 500ppm	

Note: < denotes less than.

2. US Consumer Product Safety Improvement Act

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Test Results:

<u>2.1 Children's products containing lead - Total Lead content in paint and surface coating</u> Ref.: CPSIA Sec 101(f) and 16 CFR 1303 Determined by: Inductively Coupled Plasma-Optical Emission Spectrometer

<u>Sample</u>	Result	Limit
<u></u>	<10ppm	90ppm

Note: < denotes less than.

2.2 Children's products containing lead - Total Lead content in substrate

Ref.: CPSIA Sec 101(a)

Determined by: Inductively Coupled Plasma-Optical Emission Spectrometer

Sample	Result	<u>Limit</u>
<u>2</u>	56ppm	100ppm
<u>3</u>	<10ppm	100ppm
<u>4</u>	<10ppm	100ppm
<u>5</u>	<10ppm	100ppm

Note: < denotes less than.

2.3 Phthalates content

Ref.: CPSIA Sec 108 and 16 CFR PART 1307 Determined by: Gas Chromatography with Mass Selective Detector

Test Item	CAS No.	Result(ppm)		Limit
<u>rest item</u>		<u>1</u>	<u>2</u>	<u>(ppm)</u>
Di-n-butyl phthalate (DBP)	84-74-2	<100	<100	1000
Benzyl-n-butyl phthalate (BBP)	85-68-7	<100	<100	1000
Di (2-ethylhexyl) phthalate (DEHP)	117-81-7	103	337	1000
Diisononyl phthalate (DINP)	28553-12-0	<100	<100	1000
Di-n-Hexyl phthalate (DnHP)	84-75-3	<100	<100	1000
Di-isobutyl phthalate(DIBP)	84-69-5	<100	<100	1000
Di-n-penty1 phthalate(DPENP)	131-18-0	<100	<100	1000
Di-cyclohexyl phthalate(DCHP)	84-61-7	<100	<100	1000

Note: < denotes less than.

<u>3. The Total Lead Content</u> Ref.: California Proposition 65

Determined by: Inductively Coupled Plasma-Optical Emission Spectrometer

Sample	<u>Result</u>	<u>Limit</u>
<u>1</u>	<10ppm	90ppm
<u>2</u>	56ppm	100ppm
<u>3</u>	<10ppm	100ppm
<u>4</u>	<10ppm	100ppm
<u>5</u>	<10ppm	100ppm

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Test Results:

Note: < denotes less than.

4. The BBP, DBP, DEHP, DnHP, DINP and DIDP content

Ref.: California Proposition 65 Determined by: Gas Chromatography with Mass Selective Detector

		1	2
-	Di-n-butyl phthalate (DBP)	<100ppm	<100ppm
-	Benzyl-n-butyl phthalate (BBP)	<100ppm	<100ppm
-	Di (2-ethylhexyl) phthalate (DEHP)	103ppm	337ppm
-	Di-n-Hexyl phthalate (DnHP)	<100ppm	<100ppm
-	Di-iso-nonyl phthalate(DINP)	<100ppm	<100ppm
-	Di-iso-decyl phthalate(DIDP)	<100ppm	<100ppm

Requirement: Each of the above phthalates shall not be greater than 1000ppm by mass of the tested material.

Note: < denotes less than.

5. The Total cadmium content Ref.: California Proposition 65

Determined by: Inductively Coupled Plasma-Optical Emission Spectrometer

Sample	Result	Limit
<u>1</u>	<5ppm	75ppm
2	<5ppm	75ppm
3	<5ppm	75ppm
$\overline{4}$	<5ppm	75ppm
<u>5</u>	<5ppm	75ppm

Note: < denotes less than.

6. Phthalates content

Ref.: California Assembly Bill NO.1108 Determined by: Gas Chromatography with Mass Selective Detector

A. Any toy or children article

Test Item	CAS No.	Result(ppm)		Limit(nnm)
<u>1 est item</u>	<u>CAS NO.</u>	<u>1</u>	<u>2</u>	Limit(ppm)
Dibutyl phthalate(DBP)	84-74-2	<100	<100	1000
Butyl benzyl phthalate (BBP)	85-68-7	<100	<100	1000
Di -2-ethylhexyl phthalate (DEHP)	117-81-7	103	337	1000

B. Any toys and children articles which can be placed in mouth for children under 3 years

Test Item	CAS No.	Result(ppm)		Limit(nnm)
	CAS INO.	<u>1</u>	<u>2</u>	Limit(ppm)
Di-n-octyl phthalate(DNOP)	117-84-0	<100	<100	1000
Di-iso-decyl phthalate(DIDP)	26761-40-0	<100	<100	1000
Di-iso-nonyl phthalate(DINP)	28553-12-0	<100	<100	1000

Note: < denotes less than.

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Test Results:

7. Phthalates content

Ref.: San Francisco Health Code Article 34, sec 34.2 Determined by: Gas Chromatography with Mass Selective Detector

- - -	Di-n-butyl phthalate (DBP) Benzyl-n-butyl phthalate (BBP) Di (2-ethylhexyl) phthalate (DEHP) Di-n-octyl phthalate(DNOP) Di-iso-nonyl phthalate(DINP)	1 <100ppm <100ppm 103ppm <100ppm <100ppm	2 <100ppm <100ppm 337ppm <100ppm <100ppm
-	Di-iso-decyl phthalate(DIDP)	<100ppm	<100ppm

Requirement: Each of the above phthalates shall not be greater than 1000ppm by mass of the tested material.

Note: < denotes less than.



The photo of submitted samples

***** End of Test Report *****

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