	TITLE			
	3519 Labeling - Electric & Electronic Products (China)			
	NUMBER	REVISION	DATE	ASSIGNED AUTHOR
	3519	4.00	2017-08-30	Tommy Kwan
QUALITY AND SAFETY OPERATING PROCEDURE Mattel – Confidential Information				FOR QUESTIONS CONTACT Martin Hody

1 - SCOPE (3519)

1.1 - Products and Components Covered

1.1.1 - *Electrical and electronic finished goods* sold in China

1.2 - Exemptions (None)

1.3 - Definitions (Words that are defined are *italicized and bolded* once per section)

1.3.1 - Electrical and Electronic Finished Goods: Finished goods that are dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields; designed for use with a voltage rating not exceeding 1000 volts for alternating current and 1500 volts for direct current; where “dependent” is defined as “needing electric currents or electromagnetic fields to fulfill at least one intended function.”

1.3.2 - Environmental Protection Use Period (EPUP): Refers to the period during which the hazardous substances contained in the electronic and electrical products will not leak or mutate suddenly under normal operating conditions and will not result in serious environmental pollution or cause serious bodily injury to the user or damage to their assets during the normal use by the user of the electronic and electrical products.

1.4 - Purpose

1.4.1 - To ensure electrical and electronic finished goods sold in China are appropriately marked with one of the restricted use of hazardous substance symbols.

1.5 - Other

2 - LABELING REQUIREMENTS FOR ELECTRIC & ELECTRONIC PRODUCTS (CHINA) ([QSOP 3519](#))

2.1 - China

2.1.1 - Product

2.1.1.1 - The "Environmentally Friendly Product Symbol" shown below is required on the product if the homogeneous materials in any part of the electrical or electronic product do not exceed the hazardous substance limits provided in the below table.

Hazardous Substance Limits

Substance	Limit
Cadmium (Cd)	0.01%
Mercury	0.1%
Lead (Pb)	0.1%
Hexavalent chromium (Cr6+)	0.1%
Polybrominated biphenyls (PBB)	0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%



Environmentally Friendly Product Symbol

2.1.1.2 - The "Hazardous Substance Symbol" shown below is required on the product if the homogeneous materials in any part of the electrical or electronic product exceeds the hazardous substance limits shown in the "Hazardous Substance Limits" table.



Product Contains Hazardous Substance Symbol

(Note: The number "10" is used as an example. The number used must correspond to the actual environmental protection use period (EPUP))

2.1.1.2.1 - The number (unit in years) placed within the symbol is the environmental protection use period (EPUP). See FAQ #1. See also **Appendix A**.

2.1.1.3 - Symbol Formatting Requirements

2.1.1.3.1 - The symbol must be in a place easily detected by the consumer.

2.1.1.3.2 - The symbol may be molded, painted, printed, or affixed with a label. It must be clear, distinguishable, fade resistant and difficult to remove.

2.1.1.3.2.1 - A molded symbol can be the same color as the plastic.

NOTE: The standard SJ/T 11364-2014 does not prescribe the color of the marking for the symbols. The colors green and orange that are provided in the standard are only recommended. Mattel may choose other colors for the symbols.

2.1.1.3.2.2 - If the color green is used for the "Environmentally Friendly Product Symbol", the following color model may be used:

- CMYK (C:85, M:30, Y:85, K:20)

2.1.1.3.2.3 - If the color orange is used for the "Contains Hazardous Substance Symbol", the following color model may be used:

- CMYK (C:0, M:75, Y:100, K:0)

2.1.1.3.3 - A product with a visual display (screen) may use a digital form of the mark. See **Appendix B** for digital formatting requirements.

2.1.1.3.4 - The symbol must be 5 mm x 5 mm or greater.

2.1.1.3.5 - The font type "Impact" is used for the number.

2.1.1.3.6 - The "Product Contains Hazardous Substance Symbol" must meet the following:

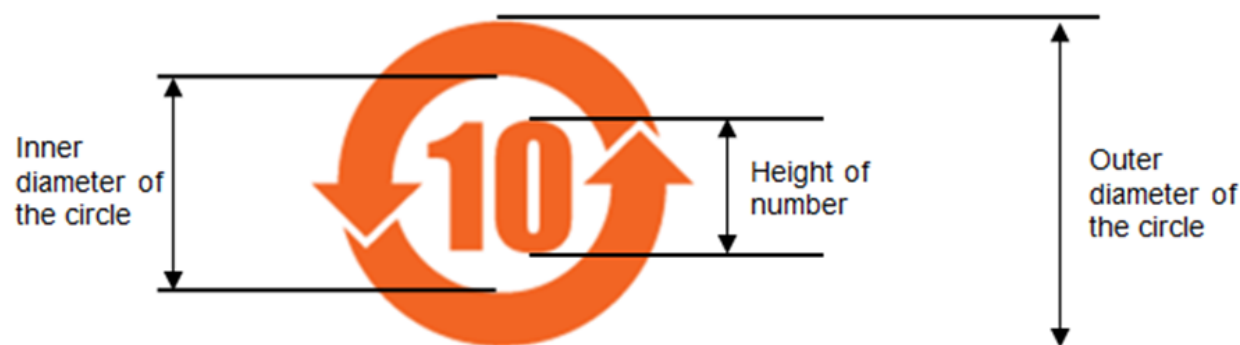
- The ratio of the text height to the inner and outer diameters of the circle is 5:8:12. See below figure.

Symbol Size Example 1

If the outer diameter of the circle is 12 mm, then the inner diameter of the circle would be 8 mm and the text height would be 5 mm.

Symbol Size Example 2

If the outer diameter of the circle is 5 mm, then the inner diameter would be 3.3 mm and the text height would be 2.1 mm.



Symbol Specifications

2.1.1.3.7 - If the sizes, shapes or surface materials or functions of the product prevents direct marking on the product, the symbol shall be specified in the instructions or provided electronically. Use the following to determine if the marking can be provided in the instructions or electronically:

- Surface area is less than 5,000 mm²
- Surface is irregularly shaped, e.g., a very thin and long cable with a very large surface area
- Incapable of being directly marked on the surface of the product due to the surface material or functions

2.1.2 - Package

2.1.2.1 - The package must be marked with the following if any part of the electrical or electronic product exceeds the hazardous substance limits shown in **Table 1**:

- Date of manufacture (See [QSOP 3598 Labeling – Date Code](#) for labeling requirements)
- Company address or phone number

2.1.3 - Instructions

2.1.3.1 - The instructions must specify the names and contents of hazardous substances as a table if any part of the electrical or electronic products exceeds the hazardous substance limits shown in the "Hazardous Substance Limits" table. Only the parts that exceed the hazardous substance limits need to be provided.

2.1.3.1.1 - The table must be included in the instructions as shown in the below table. See also **Appendix C** for an example.

2.1.3.1.2 - The table is formatted as follows:

- The first row in the table is the header
- The first column is the part name
- The other columns are the contents of the hazardous substances
- The last row is used entirely for the meanings of the symbols and explanation for other related matters.
The statements provided in the below table do not need to be worded as shown.

2.1.3.1.3 - If a hazardous substance exceeds the limits in the part, an "X" must be placed in the column

corresponding to the substance.

2.1.3.1.4 - If a hazardous substance is below the limit, an “O” must be placed in the column corresponding to the substance.

2.1.3.1.5 - The height of the Chinese characters and symbols used in the marking must be clear and legible and not be smaller than 1.8 mm.

Hazardous Substance Disclosure Table Template

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
(Name of part 1)	X	O	O	O	O	O
(Name of part 2)	X	X	X	O	O	O
<u>This table is prepared in accordance with the provisions of SJ/T 11364.</u> O: Indicates that this hazardous substance contained in all the homogeneous materials for the parts listed are below the limit requirement of GB/T 26572. X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for the parts listed are above the limit requirement of GB/T 26572.						

2.1.3.2 - The instructions for products exceeding the hazardous substance limit must include the symbol, along with the appropriate EPUP within the symbol.

2.1.3.3 - If a flyer or insert is used to address the requirements of the table, the following statement must be included.

2.1.3.3.1, ENGLISH, English provided for reference only -
KEEP FOR FUTURE REFERENCE

2.1.3.3.2, CHINESE (PRC), Exact wording is required. -
????

2.2 - The following market is covered by this labeling QSOP.

- China

3 - PROCEDURE

3.1 - Environment (None)

3.2 - Equipment (None)

3.3 - General Requirements (None)

3.4 - Method (None)

4 - HISTORY

4.1 - Significance (None)

4.2 - Reason for Revision (3519)

Section	Revision 4.00	Implementation
2.2	Editorial update to format document for labeling reports.	Editorial

Section	Revision 3.00	Implementation
2.1.1.1 2.1.1.2	Moved recommended symbol color requirements to new section.	Editorial

2.1.1.3	Added note regarding the recommended color requirements that are provided in SJ/T 11364-2014.	Editorial
2.1.1.3.2.2 2.1.1.3.2.3	Added sections. These requirements were located in sections 2.1.1.1 and 2.1.1.2.	Editorial
2.1.1.3.5	Clarified the font type applies to the number.	Editorial
2.1.1.3.6	Clarified the height requirement is applicable to the "Contains Hazardous Substance" symbol.	Editorial
7.3.2	Corrected grammatical error in Chinese version of the Hazardous Substance table.	Editorial

4.3 - Referenced Documents

4.3.1 - The following documents contain requirements related to this procedure:

- SJ/T 11364-2014 – Marking for the Restricted Use of Hazardous Substances in Electronic and Electrical Products
- SJ/Z 11388-2009 – General Guidelines of Environment-friendly Use Period of Electronic Information Products

5 - FREQUENTLY ASKED QUESTIONS

5.1 - Question 1

Question: Is there a recommended ***environmental protection use period (EPUP)*** for toys and juvenile products that fall within scope of this QSOP?

Answer: A majority of consumer electronics available on the market today include similar components as the electronic products sold by Mattel. The EPUP of these consumer electronics has been established jointly by representatives of several manufacturers of electronic products and participated in the development of SJ/Z 11388-2009 (General Guidelines of Environment-friendly Use Period of Electronic Information Products). SJ/Z 11388-2009 provides guidance on the EPUP to use on several common electronic product categories, which is included in **Appendix A** of this QSOP. Many of the electronic products have a 10 year EPUP. Therefore, GQ&RC recommends using a 10 year EPUP for toys and juvenile products.

5.2 - Question 2

Question: Can the symbol be placed on the inside of the battery door?

Answer: The symbol may be placed on the inside of the battery door, since it would still be visible to the consumer when replacing batteries.

6 - ATTACHMENTS (None)

7 - APPENDICES

7.1 - **Appendix A** - Methods for Determining Environmental Protection Use Period

7.1.1 - When determining the product's environmental-friendly use period, the following factors should be considered:

- Ambient temperature
- Pressure
- Humidity range
- Ambient air quality
- Product configuration/setting state
- Power-on time
- Product's frequency of use
- Corresponding use conditions
- Product storage conditions

7.1.2 - For products with an environment-friendly use period equal to or less than 10 years, an integer value between 1 and 10 should be selected and used as the use period. For products with environment-friendly use period greater than 10 years, an integer value that is a multiple of 5 should be selected and used as the use period. When the environment-friendly use period of a product is not a multiple of 5, a multiple of 5 that is smaller than and closest to the environment-friendly use period should be selected and used as the environment-friendly use period.

7.1.3 - The date of manufacture for electronic and electrical products is the start of the environmental protection use period.

7.1.4 - There are two methods to determine the environmental protection use period: technical environment-friendly use period and notional environment-friendly use period.

7.1.5 - Technical Environment-friendly Use Period

The technical environment-friendly use period is determined through scientific and experimental methods.

7.1.5.1 - General Principle

When the producers or importers of electronic information products possess enough scientific and experimental means, the technical environment-friendly use period should be adopted as the product's environment-friendly use period.

7.1.5.2 - Scientific Method

Under the normal use conditions for electronic information products, the technical environment-friendly use period should be determined to be the earliest (integer value) year when there are more than 5 units/cases of releases or mutation/sudden change of toxic or hazardous substances from the products.

7.1.5.3 - Experimental Method

If there are no cases of releases or mutation/sudden-change of toxic or hazardous substances under the normal use conditions for the electronic information products, then the environment-friendly use period determined in accordance with the experimental method described below should be used.

- Internationally accepted experimental methods/technologies should be used to determine the product's technical environment-friendly use period.

7.1.6 - Notional Environment-friendly Use Period

The notional environment-friendly use period is determined through integration of products and other use period concepts.

7.1.6.1 - General Principle

If the producers or importers of electronic information products cannot determine the technical environment-friendly use period under current scientific or technical conditions, then the notional environment-friendly use period should be adopted.

7.1.6.2 - Safe Use Period Method

If the product has a safe use period, then the product's safe use period should be used as the environment-friendly use period.

7.1.6.3 - Techno-life Method

If the product's techno-life (average life of the product) has been determined during the design stage and environmental factors have been considered during the design stage as well, then the follow formula should be used to calculate the product's environment-friendly use period.

Environment-friendly use period = techno-life + difference

Note: The *difference* should include market life such as transportation and storage prior to sales of products, and refurbished life for damaged but repairable product's life after repair, and maintenance and parts replacement.

7.1.6.4 - Analogy Method

For new electronic information products that have no determined product techno-life or safe use period, the environment-friendly use period for products with the same or similar manufacturing technologies and raw materials should be adopted as the environment-friendly use period.

7.1.6.5 - Look-up Method

The environment-friendly use period for common electronic information products may be obtained in the below table.

Average Environment-friendly Use Period for Common Electronic Information Products

Communications Equipment Products	Environment-friendly Use Period
Network communications equipment	50 years
Cell phone	20 years
Telephone sets	20 years

Computer Industry Products	Environment-friendly Use Period
Workstations	20 years
Micro (desktop) computers	10 years
Notebook computers	10 years
Printing equipment	10 years
Scanners	10 years
Projectors	10 years
Digital cameras	10 years
LCD monitors	10 years
Storage equipment	10 years
Floppy disk drives	10 years
POS system	10 years

Others	Environment-friendly Use Period
Electrical light sources	10 years

7.2 - Appendix B - Digital Formatting Requirements

7.2.1 - An electrical and electronic finished good with a visual display (screen) may use a digital format mark if product satisfies all of the following conditions:


- The digital logo for the restricted use of hazardous substances in the electronic and electrical product must be displayed every time the product is launched. When the logo is displayed by itself, the display time shall not be less than 2s; when the logo is displayed together with other information, the display time shall be extended appropriately, and the size and displaying position shall be adjusted to ensure the identification of the logo.
- The user may view the digital format logo for the restricted use of hazardous substances in the electronic and electrical product through the user interface during the operation of the product.
- If the orange "Hazardous Substance Symbol" is used for the marking, the user may view the names and contents of the hazardous substances in the product [i.e., the table] through the user interface, and the

marking format and marking requirements shall satisfy the provisions of the table required in the instructions (see instructions section for formatting requirements).

- The product instructions must clarify the steps for looking up the logos and forms mentioned above.
- The digital format logo for the restricted use of hazardous substances in the electronic and electrical product is read-only in the factory setting, and the contents of the logo shall not be readily modifiable through software.
- Manufacturers shall retain the relevant data of the digital format logos for the restricted use of hazardous substances in the electronic and electrical products; if the green "Environmentally Friendly Product Symbol" is used for the marking, the records shall be retained more than 3 years over the product life; if the orange "Hazardous Substance Symbol" is used for the marking, the records shall be retained more than 3 years over the environmental protection use period. When a product is damaged or cannot display properly, the manufacturer shall provide convenient access to the data.

7.3 - **Appendix C** - Example of Names and Contents of the Hazardous Substance Table

7.3.1 - English Example - Hazardous Substance Disclosure Table

KEEP FOR FUTURE REFERENCE							
Name and Content of Harmful Substances in Products							
Part Name		Hazardous Substances					
		Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Liquid Crystal Display (LCD)	CCFL	X	X	O	O	O	O
	LED	X	O	O	O	O	O
Circuit board assembly		X	O	O	O	X	O
Speaker		X	O	O	O	O	O
Remote control		X	O	O	O	O	O
Power cord		X	O	O	O	O	O
USB cable		X	O	O	O	O	O
<p>This table is prepared in accordance with the provisions of SJ/T 11364.</p> <p>O: Indicates that this hazardous substance contained in all the homogeneous materials for this part is below the limit requirement of GB/T 26572.</p> <p>X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.</p> <p>Remarks: Please note that some of the above components marked with "X" which exceed the specific limits of restricted substances, are not feasible to find any substitutions from the current technology.</p> <p> The environment-friendly use period of this product is 10 years which is only valid when under the normal operation procedure that listed on the instruction.</p> <p>"Waste electrical and electronic products recycling" description In order to better care for and protect the earth, please follow the waste electrical and electronic products recycling regulations and related laws when the product is no longer needed or the product is at the end of its useful life. Dispose of the product at a nationally recognized qualified recycling agent for recycling.</p>							

7.3.2 - Simplified Chinese Example - Hazardous Substance Disclosure Table

保留备用							
产品中有害物质的名称及含量							
部件名称		有害物质或元素					
		铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
液晶屏	CCLF	×	×	0	0	0	0
	LED	×	0	0	0	0	0
电路板组件		×	0	0	0	×	0
扬声器组件		×	0	0	0	0	0
遥控器		×	0	0	0	0	0
电源线路		×	0	0	0	0	0
USB电线		×	0	0	0	0	0
<p>本表格依据 SJ/T 11364 的规定编制。</p> <p>○: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。</p> <p>×: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。</p> <p>备注：以上标示“×”的部件，部分含有有害物质超过限量要求是由于目前科学及技术有限，暂时无法实现替代或减量化。</p> <p> 本产品的环保使用期限为10年。产品使用期限是指用户按照说明书描述正常使用条件下有效。</p> <p>《废弃电器电子产品回收处理管理条例》指示性说明</p> <p>为了更好的关爱及保护地球，当用户不再需要此产品或产品寿命终止时，请遵守国家废弃电器电子产品回收处理相关法律法规，将其交给当地具有国家认可的回收处理资质厂商进行回收处理。</p>							