



UL 172

Standard for Sustainability for Toys

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Second Edition, Dated February 6, 2013

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INTRODUCTION

1 General

1.1 This Standard is designed to reduce environmental and human health impacts by specifying criteria for: chemicals and materials, use of recycled and recyclable materials, use of sustainably sourced materials, reduced energy use, and the minimization of pollution generated by the production, use and disposal of toy products and their packaging. This Standard recognizes a wide variety of environmentally preferable toys, ranging from balls and action figures, to dolls. The goal is to create a standard that will enable consumers to easily recognize toys that lead on both safety and sustainability criteria.

1.2 This Standard includes toys made from wood, plastic, rubber, textiles, metal and bio-based materials. This Standard addresses such issues as added fragrances, antimicrobial and antibacterial agents, heavy metals such as lead, cadmium and mercury and substances that are carcinogens, mutagens or reproductive toxicants. Some categories of toys are explicitly excluded at this time (see Section 2, Scope), because the criteria in this standard do not adequately address all potential components of the toys in those categories.

1.3 The Standard also evaluates performance in a way that is intended to encourage the design and development of toy products that are more environmentally sound than those currently on the market, and are produced and sourced from materials manufactured throughout the supply chain in a way that is environmentally and socially responsible. Based on a review of currently available life cycle information, the product category performance criteria will produce an environmental benefit through a substitution of environmentally preferable and sustainably sourced raw materials, a reduction in environmental and occupational hazards in manufacturing, use and disposal, and an increase in product recyclability and use of recycled materials. Life cycle assessment is an ongoing process. As new information becomes available about life cycle impacts, the product category requirements will be reviewed and possibly amended.

2 Scope

2.1 This Standard is intended to include toys designed or intended by the manufacturer for children under 14 years of age. Toys for children made of one or more of the following materials are eligible:

- a) Wood-based materials;
- b) Plastics;
- c) Bio-based materials;
- d) Rubber;
- e) Textiles and padding material; and
- f) Metals.

Materials not listed may each comprise up to 1 percent by weight of the toy. In total, these other materials may make up a maximum of 2 percent by weight of the toy.

2.2 Articles not covered by this Standard are as follows:

- a) Bicycles and tricycles;
- b) Playground equipment (including, without limitation, home playground/swingsets and play structures);
- c) Pacifiers and teethingers;
- d) CDs and DVDs;
- e) Jewelry (except toy jewelry which has a primary purpose of providing play value);
- f) Guns of all kinds, sling shots and sharp-pointed darts;
- g) Children's furniture;
- h) Juvenile products, such as strollers, car seats, etc.;
- i) Sporting goods, camping goods, or athletic equipment intended for competitive use or for protection;
- j) Art materials, including crayons, paints, chalks, and other similar art materials;
- k) Model kits, hobby and craft items, in which the finished product is not primarily of play value;
- l) Cosmetics;
- m) Putties, gels, powders and liquids; and
- n) Electronic devices that include video screens or that are designed to be networked to a video device, including their peripherals and software.

3 Units of Measurement

3.1 For the purposes of these requirements, values shall be reported in accordance with the requirements of the specific criteria and shall be in metric units. If a manufacturer's choice of units deviates, that change shall be documented and justified as to the reason and relevance for that change.

4 Undated References

4.1 Any undated reference to a code or standard appearing in the criteria of these requirements shall be interpreted as referring to the latest edition of that code or standard. The exception shall be in the case where the criterion explicitly states a certain version or date to be used.

5 Glossary

5.1 For the purpose of these requirements, the following definitions apply.

5.2 AGRICULTURAL RESIDUE SOURCE – see Appendix C.1 Fiber Types – Distinguishing Characteristics

5.3 ALTERNATIVE RESOURCES – Resources other than raw or virgin material, including but not limited to bio-based materials and recycled/reclaimed content.

5.4 BIOBASED – Commercial or industrial goods (other than food or feed) composed in whole or in significant part of biological products, forestry materials, or renewable domestic agricultural materials, including plant, animal, or marine materials (per definition of the USDA).

5.5 BISPHENOL A – An organic compound having CAS # 80-05-7 and designated by the International Union of Pure and Applied Chemistry (IUPAC) as 4,4'-(propane-2,2-diyl) diphenol. It has two phenol functional groups such as, inter alia, 2,2- (4,4'-dihydroxydiphenyl) propane, 4,4'-isopropylidenediphenol, or 2,2'-bis(4-hydroxyphenyl) propane.

5.6 CARCINOGEN – A chemical substance or a mixture of chemical substances which induce cancer or increase its incidence. Substances and mixtures in this hazard class are assigned to one of two hazard categories. For the purposes of this standard, a carcinogen is defined as a substance that is evaluated to be a Category 1A, 1B or 2 substance under the Globally Harmonized System for Classification and Labeling of Chemicals (GHS) (http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html).

5.7 DEVELOPMENTAL TOXICANT – A substance that causes the occurrence of adverse effects on the developing organism that may result from exposure during prenatal development or postnatally to the time of sexual maturation. Adverse developmental effects may be detected at any point in the life span of the organism. For the purposes of this standard, the reference list used is the list denoted by the State of California as Chemicals Known to the State to Cause Cancer or Reproductive Toxicity, further to Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986) and its Regulations (http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html).

5.8 ENDOCRINE DISRUPTOR – An exogenous substance or mixture that alters function(s) of the endocrine system and consequently causes adverse health and development effects in an intact organism, or its progeny, or (sub) populations. Chemicals listed as Category 1 on the European Union Priority List of Endocrine Disruptors are considered endocrine disruptors for the purposes of this Standard (http://ec.europa.eu/environment/pdfendocrine/strategy/substances_en.htm).

5.9 GLOBALLY HARMONIZED SYSTEM (GHS) – The Globally Harmonized System of classification and Labeling of Chemicals, developed by the United Nations (http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html).

5.10 HALOGENATED ORGANIC COMPOUNDS – Any organic compound containing halogens including fluorine, chlorine, bromine and iodine.

5.11 JUVENILE PRODUCTS – Consumer products designed or intended primarily for use by children which are not used primarily for play. These include, but are not limited to, items such as bassinets/ cradles, bath seats, infant bath tubs, carriages and strollers, changing tables, full size cribs, gates and enclosures, handheld infant carriers, high chairs, infant bouncers, infant swings, play yards/non-full size cribs, portable bed rails, portable hook-on chairs, soft infant carriers, stationary activity centers, toddler beds and walkers (see ASTM F963, Standard Consumer Safety Specification for Toy Safety).

5.12 LEGAL+ FOREST SOURCE See Appendix C1 – Fiber Types – Distinguishing Characteristics.

5.13 MATERIAL CHANGE – Any change in the product's design, manufacturing process, or sourcing of component parts that a manufacturer exercising due care knows, or should know, could affect the product's ability to comply with this standard.

5.14 MUTAGEN – A chemical that produces a permanent change in the amount or structure of genetic material of an exposed human or animal. For the purposes of this standard, a mutagen is defined as a substance that is evaluated to be a Category 1A, 1B, or 2 substance under the Globally Harmonized System for Classification and Labeling of Chemicals (GHS) (http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html).

5.15 PACKAGE – A container providing a means of marketing, protecting, or handling of product and shall include a unit package, an intermediate package, and a shipping container as defined in ASTM D996, Standard Terminology of Packing and Distribution Environments.

5.16 PHTHALATES – Organic chemicals that are esters of phthalic acids and are mainly used as plasticizers.

5.17 POST-CONSUMER – Material that has served its end use at the consumer level, has been discarded by the consumer, and unless diverted, would enter the waste stream.

5.18 PRIMARY PACKAGING – The material physically coming into contact with and containing the product; also includes those materials that ensure product integrity, safety, regulatory compliance (on-package labels, e.g.) and prevent illicit tampering. This is in most cases the package displayed for retail sale of the toy.

5.19 RECYCLABLE MATERIAL – Material that can be diverted from the waste stream through available processes and programs, and can be collected, processed, and returned to use in the form of raw materials or products.

5.20 RECYCLED SOURCE – See Appendix C1 - Fiber Types - Distinguishing Characteristics

5.21 REPRODUCTIVE TOXICANT – A chemical that produces an adverse effect on sexual function and fertility in adult humans or developmental toxicity in children where the exposure is prenatal. For the purposes of this Standard, a reproductive toxicant is defined as a substance that is evaluated to be a Category 1A, 1B, or 2 substance under the Globally Harmonized System for Classification and Labeling of Chemicals (GHS) (http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html).

5.22 SECONDARY PACKAGING – Any packaging material other than primary packaging, including wrappers, boxes, and blister packs, but excluding shipping packaging.

5.23 SOURCE-REDUCED PACKAGE – A package that contains the equivalent product (the same amount of product or number of recommended uses) and represents at least a 20 percent reduction in material, by weight, as compared to the package being replaced.