

Product Responsibility Best Practices	SUBJECT Ink Testing Guidelines	LAST UPDATE July 2019
	APPLIES TO <ul style="list-style-type: none"> • Ink Suppliers (who contract out to 3rd party decorators) • Distributors • Suppliers • Decorators 	FOCUS ON US regulatory requirements for inks, paints, and similar surface coatings
	QUICK LINKS <ul style="list-style-type: none"> • PPAI Corporate Responsibility: http://ppai.org/corporate-responsibility • UL: industries.ul.com/premiums-promotional-and-licensed-goods • Consumer Product Safety Commission: www.cpsc.gov 	Intended for intermediate compliance programs

Italic grey text indicates a hyperlink listed in the Online Resources section of this document.

Background

As a result of the *Consumer Product Safety Improvement Act of 2008 (CPSIA)*, all inks, paints and surface coatings (hereafter collectively called inks) used on children's products must undergo third-party testing. To mitigate the costs associated with third-party testing the Consumer Product Safety Commission (CPSC) introduced the Component Part Testing Rule. This rule allows domestic manufacturers and importers to certify that the inks they are using comply with CPSIA regulations by:

- Conducting their own third-party tests by a *CPSC-accepted lab* or
- By encouraging ink suppliers to test their inks on an annual basis by a CPSC-accepted lab and provide conformity certificates to the promotional products supplier or distributor. Possession of a conformity certificate will relieve the supplier or distributor of additional ink-testing responsibilities.

What factors should I be aware of regarding ink testing?

1. Inks must be tested and certified with "pass" and specific results for tests listed above by a *CPSC-accepted third party testing laboratory*.
2. Annual testing is required. A test report dated more than 12 months ago would not be accepted to waive further testing.
3. Test report should include lead, heavy metals and phthalates and the actual amount found for each. Reference to appropriate standards and test methods should be included in test report.
4. Testing must be performed on inks that are exact composition as used on finished product. This includes any additional solvents, thinners, flatteners, hardeners, and other additives that may be used in the inks for application on finished product.

5. There must be traceability of the tested wet ink to the finished product. Use of a unique identification code is recommended.

US Regulatory Limits for Inks, Paints, Similar Surface Coatings:

1) Total Lead Content:

- 90 ppm under CPSIA;
- 40 ppm in Illinois. If over 40 ppm, may require warning statement

2) Soluble Heavy Metals (applicable to toys only):

- Antimony - 60 ppm
- Arsenic - 25 ppm
- Barium - 1000 ppm
- Cadmium - 75 ppm
- Chromium - 60 ppm
- Lead - 90 ppm
- Mercury - 60 ppm
- Selenium - 500 ppm

3) Phthalates: 1000 ppm (0.1%).

- *Six phthalates regulated by CPSIA:* DEHP, DBP, BBP, DINP, DIDP, and DnOP. Under CPSIA, the phthalates regulation is applicable to toys and child care Articles only.
- *California Proposition 65*, essentially a labeling requirement, also regulates DEHP, DBP, BBP, and DIDP (common to the CPSIA list above), but also includes a 7th phthalate, DnHP. However, DNIP and DNOP from CPSIA list are not (yet) regulated under CA Prop 65.

(IMPORTANT NOTE: CA Prop 65 phthalate regulation is applicable to all consumer products, regardless of intended age grading of the article.)

Test Methods:

Total Lead Content:

- CPSC Standard Operating Procedure for Determining Lead (Pb) in Paint and Other Similar Surface Coatings, Test Method *CPSC-CH-E1003-09.1* and/or
- *ASTM F2853-10* “Standard Test Method for Determination of Lead in Paint Layers and Similar Coatings or in Substrates and Homogenous Materials by Energy Dispersive X-Ray Fluorescence Spectrometry Using Multiple”

Soluble Heavy Metals:

- *ASTM F963-11*, Section 8.3.2 Method to Dissolve Soluble Matter for Surface Coatings

Phthalates:

- Test Method: *CPSC-CH-C1001-09.3* Standard Operating Procedure for Determination of Phthalates, April, 1, 2010 and/or
- Alternate Phthalates Test Method: GB/T 22048-2008, Toys and Children’s Products – Determination of Phthalate Plasticizers in Polyvinyl Chloride Plastic, issued on June 16, 2008.

CPSC Definitions

- Inks, Paints and Similar Surface Coatings: fluid, semi-fluid, or other materials, with or without a suspension of finely divided coloring matter, which changes to a solid film when a thin layer is applied to a metal, wood, stone, paper, leather, cloth, plastic, or other surface. This term does not include printing inks or those materials which actually become a part of the substrate, such as the pigment in a plastic article, or those materials which are actually bonded to the substrate, such as by electroplating or ceramic glazing.
- Children’s Product: a consumer product that is designed or intended primarily for use by children 12 years of age or younger.
- Children’s Toy: a consumer product designed or intended by the manufacturer for a child 12 years of age or younger for use by the child when the child plays. The ASTM F963 definition of a “toy” goes up to 14 years of age.
- Child Care Article: a consumer product designed or intended by the manufacturer to facilitate sleep or the feeding of children age 3 and younger, or to help such children with sucking or teething. California AB 1108 includes items intended for “relaxation” in its definition of child care articles, and the Illinois Poisoning Prevention Act goes up to age 6 years.

- General Use Product: a consumer product that is not designed or intended primarily for use by children 12 years old or younger. General use products are those consumer products designed or intended primarily for consumers older than age 12. Some products may be designed or intended for use by consumers of all ages, including children 12 years old or younger, but are intended mainly for consumers older than 12 years of age.

Online Resources

PPAI Responsible Sourcing FAQs: <http://ppai.org/corporate-responsibility/product-responsibility/product-responsibility-faqs/>

PPAI Guide to Navigating the Consumer Product Safety Improvement Act:

<http://www.ppai.org/media/1839/pr-guide-navigating-the-cpsia.pdf>

PPAI Component Part Testing Best Practices:

<http://www.ppai.org/media/1798/pr-bp-component-part-testing.pdf>

PPAI Decorated Children’s Apparel Testing Best Practices:

<http://www.ppai.org/media/1801/pr-bp-decorated-childrens-apparel-testing.pdf>

**P R O D U C T[™]
RESPONSIBILITY**
POWERED BY **PPAI**