



Toys, Phthalates and Lead

Meeting the challenge of the Consumer Product Safety Improvement Act (CPSIA)

This pamphlet is designed to answer some of your most pressing questions and provide guidance concerning this new legislation. In addition to outlining PolyOne's portfolio of CPSIA-compliant solutions, you will find a set of frequently asked questions and a list of places you can go to learn more.

For additional information or assistance, please visit our web site at: www.polyone.com/CPSIA, or call us at 1-866-PolyOne.

PolyOne Sustainable Solutions

PolyOne has established the "PolyOne Sustainable Solutions" mark to denote those products or services that meet defined standards for sustainability in areas such as renew-ability, recycle-ability, reusability, eco-conscious composition, or resource efficiency. Our portfolio of CPSIA-compliant products and services shown in this pamphlet is an example of our commitment to sustainability and creating value for our customers.

Renewable: Solutions that are based on, or support the use of, renewable, compostable or biodegradable resources.

Reusable: Packaging and other logistics-related systems which are easily returned or reused.

Recyclable: Solutions that incorporate post-consumer or post-industrial recycle content or which lend themselves to recycling, such as PolyOne's PlanetPak™ packaging system.

Eco-conscious composition: Solutions that respond to ever-changing market needs by offering alternatives to traditional materials such as lead, bisphenol-A (BPA), phthalates, or halogens.

Resource efficient: Solutions that help conserve the earth's resources such as those that enable more efficient production, reduce part weight or material consumption, enable faster cycle times or lower energy consumption or provide better insulating properties.



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To learn more go to www.polyone.com/sustain.



Color, Additive and Ink Solutions

Advantages

Create differentiating aesthetics for your end products while assuring compliance with CPSIA regulations; increase productivity, reduce scrap and customer returns; improve speed-to-market with globally available solutions.

CPSIA-Compliant Solutions

- OnColor™ non-phthalate color concentrates for vinyl
- OnCap™ non-phthalate additive concentrates for vinyl
- Smartbatch™ non-phthalate color and additives concentrates for vinyl
- Wilflex™ Oasis water-based inks
- Wilflex™ Epic Series non-phthalate inks
- Wilflex™ QuantumOne non-phthalate inks

Color, Additive & Ink Capabilities

- Unlimited palette of custom and catalog color concentrates
- Full range of process efficiency and functional improvement additives
- Expertise in wide variety of base resins, including biopolymers
- Responsive color matching from Color Design Centers across the country
- Rapid delivery of high quality products
- Global leader in screen printing inks, with broadest offering, technical support and geographic reach

Specialty Engineered Materials and GLS™ Thermoplastic Elastomers

Advantages

Meet end-product performance requirements with CPSIA-compliant materials, including specialty-engineered compounds and thermoplastic elastomers; improve your competitiveness through innovative technologies developed and delivered quickly, across the globe.

CPSIA-Compliant Solutions

- Specialty Engineered Thermoplastics
- GLS™ Thermoplastic Elastomers
- Edgetek™ Compounds made with BPA-free Eastman™ Tritan™ copolyester

Specialty Engineered Materials Capabilities

- Technology Solution Centers focused on process and product development of a broad portfolio of specialty materials customized to your requirements.
- Expertise with a wide range of polymers, from high performance resins to thermoplastic elastomers and biopolymers
- Expertise with a wide range of additives and polymer processes
- Specialty performance characteristics including; heat and electrical properties, surface touch, impact resistance, rigidity, flexibility, weight, transparency, opacity, color, flame resistance, chemical resistance, UV stability, and more

CPSIA Testing Services – Polymer Diagnostics Inc.

Advantages

Confidential analysis and results you can trust from the leading independent polymer testing lab; Cut through the testing confusion and know immediately that the right tests are run the right way; Get the data and advice you need to run your business.

CPSIA Testing Services

- Phthalate detection down to the regulated levels
- Lead testing in materials down to the regulated levels
- Test raw materials, compounds or finished goods

Polymer Diagnostics Inc. Capabilities

- More than 50 years of history in polymer materials and problem solving
- Accredited under ISO 17025 by A2LA as an independent laboratory body
- Precision testing services including polymer characterization, mechanical and physical properties, fire science, accelerated weathering, chemical analysis, microscopy and rheology
- Advanced consulting services including performance prediction, litigation support, failure analysis and product deformation



Polymer
Diagnostics Inc.

Geon™ Plastisols and Flexible Vinyl Compounds

Advantages

Maintain the end-product quality and performance you expect from the world's leading vinyl compounder, while complying with CPSIA regulations and guidelines.

CPSIA-Compliant Solutions

- Geon™ CPSIA-compliant flexible vinyl compounds
- Geon™ CPSIA-compliant plastisols
- Geon™ rigid vinyl compounds
- Synplast™ phthalate-alternative plasticizers

Geon Plastisol and Vinyl Capabilities

- The worldwide leader in vinyl compounding and plastisols with over 60 years of experience
- Standard or custom-compounded rigid, flexible, dry-blend and liquid plastisol products
- State-of-the-art formulation and process technology
- Global operations and availability
- Standard or custom colors
- Superior properties based on need: weatherability, UV stability, fire resistance, chemical resistance, corrosion resistance, impact strength, etc.

PolyOne Distribution

Advantages

Broad portfolio of unbiased solutions from the world's leading polymer manufacturers; CPSIA-compliant materials delivered when and where you need them.

CPSIA-Compliant Solutions

- CPSIA-compliant solutions spanning the full range of polymers, including; PE, PP, PC, PS, ABS, SAN, EVA, PA, TPU's and TPE's.

PolyOne Distribution Capabilities

- Over 3,500 grades of commodity and engineering resins and compounds
- 20 major suppliers, including: Dow, DuPont, Bayer, Ineos, LyondellBassell, CP Chem, Lanxess, Arkema, Eastman and PolyOne
- Rapid delivery from more than 20 warehouses across the NAFTA region
- Extensive technical support from polymer experts
- One-stop shop of full solution bundles

Environmental, Health & Safety Regulatory Compliance Services

Advantages

Tap into a wealth of global EH&S expertise and keep up with changing regulations as they happen; Understand your business risk and help enhance the sustainability of your end product solutions.

CPSIA Regulatory Services

- CPSIA regulation tracking, interpretation and compliance recommendations
- CPSIA-compliant product management system to flag and isolate production to PolyOne's internal GMP-certified lines
- Our No Surprises PledgeSM means that you can expect all PolyOne products to only contain ingredients that conform to legal and regulatory guidelines

PolyOne Regulatory Capabilities

- Providing stewardship to our customers, communities, employees and the environment
- Staff of recognized industry experts
- Global knowledge and availability of support
- Food, Drug and Medical (FDM) experience, protocols and certifications
- Product certifications including; RoHS, WEEE, IMDS, CONEG, heavy metals, Prop 65, BSE, NSF, UL, CSA, etc.
- MSDS, dangerous goods and hazard communication recommendations

Frequently Asked Questions

1. What is the Consumer Product Safety Improvement Act (CPSIA)

The Consumer Product Safety Improvement Act (CPSIA), which went into effect February 10, 2009, is a sweeping new law that impacts a broad spectrum of our economy. From manufacturers of toys to the kids that play with them, everyone is affected in some way—even those who make and donate products to hospitals and charities. There are new rules to be understood and adopted for everyone from the largest global manufacturer to the crafter working in the family workshop to the mom-and-pop shop on the corner. Indeed, all children's products including toys, books, child care articles and clothing are covered in different ways by this law, and there are different rules for different products.

2. What is the first step I should take in addressing this issue?

Do your research first to become as knowledgeable as possible. Check with your suppliers to determine how they are addressing CPSIA requirements in their products. Find out what the government requires manufacturers to provide in terms of certification and testing. There are several useful web sites you can reference. These include:

The Consumer Products Safety Commission (CPSC):
www.cpsc.gov/ABOUT/Cpsia/cpsia.HTML

The Toy Industry Association:
www.toyassociation.org/AM/Template.cfm?Section=CPSIA

Polymer Diagnostics Incorporated (Testing Services):
www.polymerdiagnostics.com

3. How can I be certain the raw materials I buy are compliant?

The timetable for testing, certification and enforcement as outlined on the CPSC web site (see link in adjacent column), generally requires compliance in advance of testing and certification. You should study this timetable carefully and ask your suppliers how and when they are planning to provide certification for the raw materials you purchase to ensure you can meet the CPSIA timetable.

4. How can I find the right polymer or additive for my needs?

This pamphlet outlines PolyOne's broad portfolio of sustainable solutions including CPSIA-compliant and non-phthalate compounds and additives that meet the requirements of the Act without sacrificing performance or processability. These and all PolyOne materials carry our No Surprises PledgeSM, which means that manufacturers can expect the materials PolyOne produces contain only ingredients that conform to legal and regulatory compliance guidelines.

5. Where can I find testing services for my products and those of my suppliers?

Polymer Diagnostics Inc. (PDI), a wholly owned subsidiary of PolyOne Corp., can test raw materials, compounds and finished goods. Depending on the results, additional analyses can be done to verify findings and insure accuracy, which helps reduce the potential for false positive results. PDI is accredited under ISO 17025 by A2LA (the American Association for Laboratory Accreditation) to perform testing as an independent laboratory body. PDI's scope of accreditation currently includes plasticizer determination as well as testing for lead.

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