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CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1252

[Docket No. CPSC-2017-0038]

Children's Products, Children's Toys, and Child Care Articles: Determinations Regarding Lead, ASTM F963 Elements, and Phthalates for Engineered Wood Products

AGENCY: U.S. Consumer Product Safety Commission.

ACTION: Final rule.

SUMMARY: The Consumer Product Safety Commission (CPSC) is issuing a final rule determining that certain untreated and unfinished engineered wood products (EWPs), specifically, particleboard, hardwood plywood, and medium-density fiberboard, made from virgin wood or pre-consumer wood waste do not contain lead, the ASTM F963 elements, or specified phthalates that exceed the limits set forth under the CPSC's statutes for children's products, children's toys, and child care articles. Based on these determinations, the specified EWPs would not be required to have third party testing for compliance with the requirements for lead, ASTM F963 elements, or phthalates for children's products, children's toys, and child care articles.

DATES: The rule is effective on [**insert date 30 days after publication in the FEDERAL REGISTER**].

FOR FURTHER INFORMATION CONTACT: Stephen Lee, Office of Compliance, U.S. Consumer Product Safety Commission, 4330 East West Hwy, Bethesda, MD 20814; 301-504-7844: email: slee@cpsc.gov.

SUPPLEMENTARY INFORMATION:

A. Background

1. Third Party Testing and Burden Reduction

Section 14(a) of the Consumer Product Safety Act (CPSA), as amended by the Consumer Product Safety Improvement Act of 2008 (CPSIA), requires that manufacturers of products subject to a consumer product safety rule or similar rule, ban, standard, or regulation enforced by the CPSC, must certify that the product complies with all applicable CPSC-enforced requirements. 15 U.S.C. 2063(a). For children's products, children's toys, and child care articles, certification must be based on testing conducted by a CPSC-accepted third party conformity assessment body (laboratory). *Id.* Public Law No. 112-28 (August 12, 2011) directed the CPSC to seek comment on "opportunities to reduce the cost of third party testing requirements consistent with assuring compliance with any applicable consumer product safety rule, ban, standard, or regulation." Public Law No. 112-28 also authorized the Commission to issue new or revised third party testing regulations if the Commission determines "that such regulations will reduce third party testing costs consistent with assuring compliance with the applicable consumer product safety rules, bans, standards, and regulations." *Id.* 2063(d)(3)(B).

2. *CPSC's Lead Standard*

Section 101 of the CPSIA has two requirements associated with lead in children's products. 15 U.S.C. 1278a. First, no accessible part of a children's product may contain more than 100 parts per million (ppm) lead content. Second, paint or other surface coatings on children's products and furniture intended for consumer use may not contain lead in concentrations greater than 90 ppm. Manufacturers of children's products must

certify, based on third party testing, that their products comply with all relevant children's product safety rules. Thus, products subject to the lead content or paint/surface coating limits require passing test results from a CPSC-accepted third party laboratory for the manufacturer to issue a children's product certificate (CPC), before the products can be entered into commerce.

To alleviate some of the third party testing burdens associated with lead in the accessible component parts of children's products, the Commission determined that certain materials, including gemstones, precious metals, wood, paper, CMYK process printing inks, textiles, and specified stainless steel, do not exceed the 100 ppm lead content limit under section 101 of the CPSIA. Based on this determination, these materials do not require third party testing for the lead content limits. The determinations regarding lead content for certain materials are set forth in 16 CFR 1500.91.

3. *ASTM F963 Elements*

Section 106 of the CPSIA provides that the provisions of ASTM International *Consumer Safety Specifications for Toy Safety* (ASTM F963) shall be considered to be consumer product safety standards issued by the Commission.[1] 15 U.S.C. 2056b. The Commission has issued a rule that incorporates by reference the relevant provisions of ASTM F963.[2] 16 CFR part 1250. Thus, children's toys subject to ASTM F963 must be tested by a CPSC-accepted third party laboratory and demonstrate compliance with all

[1] ASTM F963 is a consumer product safety standard, except for section 4.2 and Annex 4, or any provision that restates or incorporates an existing mandatory standard or ban promulgated by the Commission or by statute.

[2] The current version of ASTM F963 is ASTM F963-17. The test method for the ASTM F963 elements allows the use of High-Definition X-Ray Fluorescence Spectroscopy (HDXRF) for total element screening. See section 8.3.1.4 of ASTM F963-17.

applicable CPSC requirements for the manufacturer to issue a CPC before the children's toys can be entered into commerce.[3]

Section 4.3.5 of ASTM F963 requires that surface coating materials and accessible substrates of children's toys that can be sucked, mouthed, or ingested[4] must comply with the solubility limits of eight elements listed in Table 1 of the toy standard. The materials and their solubility limits are shown in Table 1. We refer to these eight elements as "ASTM F963 elements."

Table 1: Maximum Soluble Migrated Element in ppm (mg/kg) for Surface Coatings and Substrates Included as Part of a Toy

Elements	Solubility Limit, (ppm)[5]
Antimony (Sb)	60
Arsenic (As)	25
Barium (Ba)	1000
Cadmium (Cd)	75
Chromium (Cr)	60
Lead (Pb)	90

[3] A "children's toy" is defined in section 1.3 of ASTM F963-17 as any object designed, manufactured, or marketed as a plaything for children under 14 years of age. However, the term "children's toy" is defined in section 108(e)(1)(B) of the CPSIA as 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. Only toys intended for a child 12 years of age or younger are subject to certification requirements.

[4] ASTM F963 contains the following note regarding the scope of the solubility requirement: NOTE 4—For the purposes of this requirement, the following criteria are considered reasonably appropriate for the classification of children's toys or parts likely to be sucked, mouthed or ingested: (1) All toy parts intended to be mouthed or contact food or drink, components of children's toys which are cosmetics, and components of writing instruments categorized as children's toys; (2) Children's toys intended for children less than 6 years of age, that is, all accessible parts and components where there is a probability that those parts and components may come into contact with the mouth.

[5] The method to assess the solubility of a listed element is detailed in section 8.3.2, *Method to Dissolve Soluble Matter for Surface Coatings*, of ASTM F963. Modeling clays included as part of a toy have different solubility limits for several of the elements.

Mercury (Hg)	60
Selenium (Se)	500

The third party testing burden could be reduced only if all elements listed in section 4.3.5 have concentrations below their solubility limits. Because third party laboratories typically run one test for all of the ASTM F963 elements, no testing burden reduction would be achieved if any one of the elements requires testing.

To alleviate some of the third party testing burdens associated with the ASTM F963 elements in the accessible component parts of children's toys, the Commission determined that certain unfinished and untreated trunk wood does not contain ASTM F963 elements that would exceed the limits specified in section 106 of the CPSIA. Based on this determination, unfinished and untreated trunk wood would not require third party testing for the ASTM F963 elements. The determinations regarding the ASTM F963 elements limits for certain materials is set forth in 16 CFR 1251.2.

4. *Phthalates*

Section 108(a) of the CPSIA permanently prohibits the manufacture for sale, offer for sale, distribution in commerce, or importation into the United States of any "children's toy or child care article" that contains concentrations of more than 0.1 percent of di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), or butyl benzyl phthalate (BBP). 15 U.S.C. 2057c(a). The CPSIA required the Commission to appoint a Chronic Hazard Advisory Panel (CHAP) to "study the effects on children's health of all phthalates and phthalate alternatives as used in children's toys and child care articles." 15

U.S.C. 2057c(b)(2). The CHAP issued its report in July 2014.[6] On October 27, 2017, the Commission published a final rule in the *Federal Register*, "Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates," 82 FR 49938, prohibiting children's toys and child care articles containing concentrations greater than 0.1 percent of:

- di-(2-ethylhexyl) phthalate (DEHP);
- dibutyl phthalate (DBP);
- benzyl butyl phthalate (BBP);
- diisononyl phthalate (DINP);
- diisobutyl phthalate (DIBP);
- di-*n*-pentyl phthalate (DPENP);
- di-*n*-hexyl phthalate (DHEXP); or
- dicyclohexyl phthalate (DCHP).

These restrictions apply to any plasticized component part of a children's toy or child care article or any other component part of a children's toy or child care article that is made of other materials that may contain phthalates. The phthalates prohibitions are set forth in 16 CFR part 1307.

Tests for phthalate concentration are among the most expensive certification tests to conduct on a product, and each accessible component part subject to section 108 of the

[6] http://www.cpsc.gov/PageFiles/169902/CHAP-REPORT-With-Appendices.pdf.

CPSIA must be tested.[7] Third party testing burden reductions can occur only if each phthalate's concentration is below 0.1 percent (1000 ppm). Because laboratories typically run one test for all of the specified phthalates, no testing burden reduction likely is achieved if any one of the phthalates requires compliance testing.

To alleviate some of the third party testing burdens associated with plastics in the accessible component parts of children's toys and child care articles, the Commission determined that products made with general purpose polystyrene (GPPS), medium-impact polystyrene (MIPS), high-impact polystyrene (HIPS), and super high-impact polystyrene (SHIPS) with specified additives do not exceed the phthalates content limits under section 108 of the CPSIA. 82 FR 41163 (August 30, 2017). Based on this determination, materials used in children's toys and child care articles that use these specified plastics and additives would not require third party testing for the phthalates content limits. The plastics determinations are set forth in the Commission's regulations at 16 CFR part 1308.

5. Notice of Proposed Rulemaking

On October 13, 2017, the Commission published a notice of proposed rulemaking (NPR) in the *Federal Register* for the engineered wood determinations. (80 FR 47645). The Commission proposed determinations that untreated and unfinished EWPs (particleboard, hardwood plywood, and medium-density fiberboard) made from virgin wood or pre-consumer wood waste, do not contain lead, or any of the specified elements in ASTM F963 in concentrations greater than their specified solubility limits. In addition,

[7] Test costs for the content of all the specified phthalates have been reported to range from $125 to $350 per component, depending upon where the tests are conducted and any discounts that might apply.

with the exception of hardwood plywood that contains PVAc adhesive formulations, the Commission proposed a determination that these specified EWPs do not contain any of the specified phthalates in concentrations greater than 0.1 percent. The comments to the NPR are addressed in section C of this preamble.

B. Contractor's Research

1. Overview

CPSC contracted with the Toxicology Excellence for Risk Assessment (TERA),[8] who authored literature review reports on the content issues related to certain natural materials, plastics, and EWPs. The following reports produced by TERA formed the basis for the proposed EWP determinations: Task 9, *Concentrations of Selected Elements in Unfinished Wood and Other Natural Materials*; Task 11, *Exposure Assessment: Composition, Production, and Use of Phthalates*; and Task 14, *Final Report for CPSC Task 14*, which summarized the available information on the production of the EWPs.

1. *TERA Task 9 Report*

In the Task 9 Report, TERA conducted a literature search on whether unfinished wood and other natural materials could be determined not to contain any of the ASTM F963 elements in concentrations greater than the ASTM F963 solubility limits.[9] The materials researched included unfinished woods (ash, beech, birch, cherry, maple, oak, pine, poplar, and walnut); bamboo; beeswax; undyed and unfinished fibers and textiles

[8] After conducting the contract reports for the CPSC, TERA reorganized as the Risk Science Center at the University of Cincinnati: https://med.uc.edu/eh/centers/rsc.
[9] http://www.cpsc.gov/Global/Research-and-Statistics/TechnicalReports/Toys/TERAReportASTMElements.pdf.

(cotton, wool, linen, and silk); and uncoated or coated paper (wood or other cellulosic fiber).

To assess the presence of the ASTM F963 elements' concentrations in the materials, TERA looked at several factors. The factors reviewed included the presence and concentrations of the elements in the environmental media (*e.g.*, soil, water, air), and in the base materials for the textiles and paper; whether processing has the potential to introduce any of the ASTM F963 elements into the material under study; and the potential for contamination after production, such as through packaging. From this report, the Commission determined that untreated and unfinished woods from tree trunks do not contain any of the elements in ASTM F963 in concentrations greater than their respective solubility limits, and thus, they are not required to be third party tested to ensure compliance with the specified solubility test.[10] TERA relied on this information in TERA Task Report 14 to determine that the virgin wood material used in the manufacture of EWPs does not, and will not, contain any of the elements in ASTM F963 in concentrations greater than their respective solubility limits.

2. *TERA Task 11 Report*

In the Task 11 Report, TERA conducted a literature search on the production and use of 11 specified phthalates in consumer products.[11] The 11 phthalates researched by TERA were based on the recommendations made in the CHAP report. The 11 phthalates included the eight prohibited phthalates that are subject to the final rule prohibiting children's toys and child care articles containing specified phthalates issued in October

[10] 80 FR 78651 (Dec. 17, 2015).
[11] http://www.cpsc.gov//Global/Research-and-Statistics/Technical-Reports/Other%20Technical%20Reports/TERAReportPhthalates.pdf.

2017 and codified in 16 CFR part 1307. (82 FR 49938). Table 2 lists the phthalates researched by TERA. TERA's research focused on the following factors:

- The raw materials used in the production of the specified phthalates;
- The manufacturing processes used worldwide to produce the specified phthalates;
- Estimated annual production of the specified phthalates;
- Physical properties of the specified phthalates (*e.g.*, vapor pressure, flashpoint, water solubility, temperature at which chemical breakdown occurs);
- Applications for phthalates use in materials and consumer and non-consumer products; and
- Other potential routes by which phthalates can be introduced into an otherwise phthalates-free material (*e.g.*, migration from packaging, recycling, reuse, product breakdown).

Table 2: Phthalates Researched in the Task 11 Report
***Prohibited Phthalates under 16 CFR Part 1307**

Phthalate	**CASRN[12]**
*DEHP: di-(2-ethylhexyl) phthalate	117-81-7
*DBP: dibutyl phthalate	84-74-2
*BBP: benzyl butyl phthalate	85-68-7
*DINP: diisononyl phthalate	28553-12-0, 68515-48-0
DIDP: diisodecyl phthalate	26761-40-0, 68515-49-1
DnOP: di-n-octyl phthalate	117-84-0

[12] A CAS Registry Number is assigned to a substance when it enters the CAS REGISTRY database. https://www.cas.org/content/chemical-substances/faqs.

DIOP: diisooctyl phthalate	27554-26-3
*DIBP: diisobutyl phthalate	84-69-5
*DPENP: di-n-pentyl phthalate	131-18-0
*DHEXP: di-n-hexyl phthalate	84-75-3
*DCHP: dicyclohexyl phthalate	84-61-7

TERA found that phthalates are used generally as plasticizers or softeners of certain plastics, primarily polyvinyl chloride (PVC), as solvents, and as component parts of inks, paints, adhesives, and sealants.

3. *TERA Task 14 Report*

In the Task 14 Report, TERA conducted a literature search on the production of three EWPs: particleboard, hardwood plywood, and medium-density fiberboard.[13] TERA first researched authoritative sources, such as reference books and textbooks, along with Internet resources, for general information about EWPs, adhesives, raw materials, manufacturing processes, and the potential use of recycled materials. TERA used this information and consulted technical experts to identify key words for searching the literature. These key words were then used to conduct primary literature searches for research studies and publications. In addition, TERA searched for Safety Data Sheets (SDS) for information on raw materials. TERA researched the possibility of the raw materials or finished products in the three EWPs to contain:

- Lead in concentrations exceeding 100 ppm;

[13] https://www.cpsc.gov/s3fs-public/ManufacturedWoodsTERATask14Report.pdf.

- Any of the specified elements that are included in the safety standard for children's toys, ASTM F963, *Standard Consumer Safety Specification for Toy Safety*, in concentrations exceeding specified solubility limits; or
- Any of 10 specified phthalates in concentrations greater than 0.1 percent (1000 ppm), listed in Table 3.[14]

Table 3: Phthalates Researched in the Task 14 Report
***Prohibited Phthalates under 16 CFR Part 1307**

Phthalate	CASRN
*DEHP: di-(2-ethylhexyl) phthalate	117-81-7
*DBP: dibutyl phthalate	84-74-2
*BBP: benzyl butyl phthalate	85-68-7
*DINP: diisononyl phthalate	28553-12-0, 68515-48-0
DIDP: diisodecyl phthalate	26761-40-0, 68515-49-1
DnOP: di-n-octyl phthalate	117-84-0
*DIBP: diisobutyl phthalate	84-69-5
*DPENP: di-n-pentyl phthalate	131-18-0
*DHEXP: di-n-hexyl phthalate	84-75-3
*DCHP: dicyclohexyl phthalate	84-61-7

TERA found that, generally, the processes for manufacturing the three EWPs are similar; wood fibers, chips, layers, or a similar raw wood product are processed with various adhesive formulations (sometimes referred to as binders or resins) along with

[14] The TERA research providing the basis for this determination covered the six phthalates subject to the statutory prohibition, as well as the additional phthalates the Commission proposed to prohibit in children's toys and child care articles, with the exception of DIOP. The Commission has issued a final rule prohibiting eight phthalates in children's toys and child care articles on October 17, 2017 (82 FR 49938).

other additives to create uniform sheets with known characteristics and performance qualities. The main difference among the three types of EWPs relates primarily to the size and morphology (shape and surface characteristics) of the wood material used in their production.

TERA reviewed the literature to assess whether the specified EWPs might contain lead or one or more of the other elements at levels that exceed the ASTM solubility limits, or any of the specified phthalates in concentrations greater than the specified limits. TERA reported that no studies found lead, the ASTM F963 elements, or the specified phthalates in concentrations greater than their limits in particleboard, hardwood plywood, or medium-density fiberboard, that are unfinished and untreated, and made from virgin wood or pre-consumer wood waste.

In the Task 14 Report, TERA described an unfinished EWP as one that does not have any surface treatments applied at manufacture, such as factory-applied coatings. An untreated EWP is one that does not have any additional finishes applied at manufacture, such as flame retardants or rot-resistant finishes. TERA described "virgin wood" as wood logs, fibers, chips, or layers that have not been recycled from a previous use. TERA described "pre-consumer wood waste" as wood materials that have been recycled from an industrial process before being made available for consumer use. Examples of this type of waste include trimmings from EWP panel manufacturing, sawdust from cutting logs, or remaining wood pieces from sawing a log into framing lumber.

The TERA report highlighted the potential for lead, the ASTM F963 elements, or the specified phthalates to be present in concentrations greater than those specified through the use of contaminated recycled material in EWPs made from recycled wood

waste or EWPs that have post-manufacturing treatments or finishes. Recycled wood waste may be made from reclaimed or post-consumer wood waste. "Post-consumer wood waste" is described as wood waste that is comprised of materials that are recovered from their original use and subsequently used in a new product. Examples of this type of waste include recycled demolition wood, packaging materials, such as pallets and crates, used wood from landscape care (*i.e.*, from urban and highway trees, hedges, and gardens), discarded furniture, and wood waste from industrial, construction, and commercial activities.

The three types of EWPs reviewed by TERA are discussed below.

a. *Particleboard*

Particleboard is a composite of wood chips, adhesives, and other additives pressed into a board. Adhesive formulations are used to bond wood chips, which are then formed into mats that are layered to create uniform boards in a range of dimensions. Particleboard is used widely in furniture making and other interior (or nonstructural) uses. The constituent parts of particleboard reported by TERA can include (by weight):

- Wood (60-99+ percent);
- Adhesive formulation (0-17 percent, with 5-11 percent most common);
- Phenol-formaldehyde (uncommon but potential for use), urea-formaldehyde, melamine-urea-formaldehyde, polymeric methylene-diphenyl-diisocyanate (pMDI);
- Waxes (0.3-1 percent);

- Other additives (up to 2 percent); or
- Scavengers or additional unspecified materials.

TERA researched the possibility of lead, the ASTM F963 elements, or the specified phthalates, in concentrations greater than their specified limits in particleboard. TERA identified little information on measurements of lead and the ASTM F963 elements in particleboard, and found no studies that measured the specified phthalates. TERA identified two references where particleboard made from both untreated and copper chromate arsenic-(CCA) treated wood chips was tested. Arsenic and chromium were undetected in the particleboards made from virgin wood chips. However, the particleboard composed of 25 percent wood chips from reclaimed CCA-treated wood products contained 895 and 832 ppm of arsenic and chromium, respectively, without adversely affecting the mechanical performance of the board. Another study that discussed "recycled particleboard" was identified as wood waste obtained from a wood recycling plant.

Apart from the studies on particleboard made from wood waste that may contain post-consumer wood waste or post-manufacturing treatments, TERA reported that no studies found lead, the ASTM F963 elements, or the specified phthalates in concentrations greater than the specified limits in untreated and unfinished particleboard.

b. *Hardwood Plywood*

Plywood is a layered board of wood veneers, where the layers have alternating, perpendicular wood grain directions. Less commonly, the board might have a core of other EWPs with wood veneers as the outer layers. Hardwood plywood, addressed in this

report, is a type of plywood that is composed of angiosperms (*i.e.*, "hardwoods," such as oak or maple) and used primarily in furniture and for other interior (nonstructural) purposes, as well as in playground equipment, sports equipment, and musical instruments. The constituent parts of hardwood plywood reported by TERA can include (by weight):

- Wood (75-99+ percent);
- Adhesive formulation (0.02-20 percent, with 1 percent to 5 percent most common);
- Phenol-formaldehyde or phenol-resorcinol-formaldehyde (likely for use in structural plywood but potential for application to hardwood plywood), urea-formaldehyde, melamine-formaldehyde, or melamine-urea-formaldehyde, or polyvinyl acetate (PVAc); or
- Other additives (less than 2 percent).

TERA researched the possibility of lead, the ASTM F963 elements, or the specified phthalates in concentrations greater than those specified in hardwood plywood. TERA identified only one study that measured lead and the ASTM F963 elements in plywood, and found no studies that measured the specified phthalates. Concentrations of cadmium, chromium, and lead were all less than the solubility limits in "plain" plywood. In addition, because hardwood plywood is made from sheets of wood veneer, it is less likely to contain recycled wood content, unless it incorporates a core of some other EWPs, such as particleboard or medium-density fiberboard.

Aside from the studies on recycled wood waste that may contain post-consumer wood waste or post-manufacturing treatments in a particleboard, medium-density fiberboard, or other EWP core, TERA reported that no studies found lead, the ASTM F963 elements, or the specified phthalates in concentrations greater than the specified limits in untreated and unfinished hardwood plywood. However, TERA identified research that indicated that polyvinyl acetate (PVAc) can be used as an adhesive system for hardwood plywood, as discussed in section (d) below.

c. *Medium-Density Fiberboard*

Medium-density fiberboard (MDF) is a composite of wood fibers, an adhesive formulation, and other additives pressed into a board. MDF is a product similar to particleboard, differing mostly due to the use of fiber rather than chips. It is used primarily in furniture and for other interior (nonstructural) purposes. The constituent parts of MDF reported by TERA can include (by weight):

- Wood (73-99+ percent);
- Adhesive formulation (0-25 percent with most common 5-12 percent);
- Phenol-formaldehyde (uncommon, but potentially used for moisture resistance), urea-formaldehyde (most commonly identified), methylene-diphenyl-diisocyanate (pMDI), melamine-formaldehyde, or melamine-urea-formaldehyde;
- Waxes (less than 1 percent); or
- Other additives (10-30 percent).

TERA researched the possibility of lead, the ASTM F963 elements, or the specified phthalates in concentrations greater than those specified in MDF. TERA did not identify any references that reported the presence of lead, the ASTM F963 elements, or the specified phthalates in MDF made with virgin wood.

Aside from the studies on recycled wood waste that may contain post-consumer wood waste or post-manufacturing treatments, TERA reported that no studies found lead, the ASTM F963 elements, or the specified phthalates in concentrations greater than the specified limits in untreated and unfinished MDF.

d. *TERA's Findings on EWP Constituent Parts*

Because few references were found directly addressing lead, the ASTM F963 elements, and the specified phthalates in EWPs, TERA also researched the constituent parts that could be used to manufacture EWPs, including wood and adhesives.

Wood

According to the manufacturing process information provided by TERA, virgin wood and wood residues are the main sources of wood fiber used in North America to manufacture EWPs. Typically, these sources include low-value logs, industrial wood residues, or scraps and trim from furniture and EWP production. For example, hardwood plywood requires the trunks of trees to obtain the thin layers of veneer used to construct a sheet. TERA relied on the Task 9 Report and Commission findings on unfinished and untreated wood (80 FR 78651 (Dec. 17, 2015)) to determine that untreated and unfinished wood from the trunks of trees do not contain lead or the ASTM F963 elements in concentrations greater than the specified solubility limits. TERA also noted that,

although phthalates can be taken up by trees and plants, the concentrations are negligible and less than the specified limit (0.1 percent).

Although TERA reported that the majority of EWPs are manufactured with virgin wood or pre-consumer wood waste fiber or chips, the wood component also can originate from recycled material. For EWPs made from recycled wood waste that may contain post-consumer wood waste, the TERA report highlighted the potential for lead, the ASTM F963 elements, or the specified phthalates to be present in concentrations greater than those specified through the use of contaminated recycled material. The TERA report cited multiple examples of the use of reclaimed or post-consumer wood material used to produce EWPs, both domestically and internationally. Specifically, TERA found studies showing that reclaimed lumber and wood waste could contain a myriad of contaminants, such as surface treatments (*e.g.*, paints, stains), metals, glues and adhesives, glass, paper, plastic, rubber and chemical treatments. Metals and organic materials may be present in paints, stains, varnishes, and polishes that are used on wood products (*e.g.*, furniture, window frames) and nails, screws, and other metal hardware might be attached to the recycled and recovered wood. These contaminants are intimately attached to the wood, and therefore, some contaminants may pass through cleaning systems, contaminating the entire recovered wood stream.

TERA also reviewed another study, based in Italy, which evaluated the "recyclability" of used wood, by conducting elemental analysis of wood residues from wood recycling plants using a handheld fast energy dispersive X-ray fluorescence spectroscopy (ED-XRF) device. TERA found that the study provided some indication of the types and levels of contamination in various kinds of post-consumer wood waste.

Elemental analysis results were compared to EU Community Ecolabel limits.[15] For all wood products tested, 16 percent exceeded one or more of the Ecolabel limits, with the highest concentrations from lead, chromium, chlorine, copper, cadmium, and mercury. No samples had levels of arsenic over the 25 ppm limit (except a CCA-treated utility pole). Barium and lead were found in 10 percent to 20 percent of the samples, chromium and cadmium in 3 percent to 4 percent, and antimony, mercury, and arsenic ranged from 0.3 percent to 1.2 percent of samples. The sources most contaminated with non-wood content were from furniture and building materials, while pallets and shipping containers were least likely to be contaminated.[16]

TERA concluded that, with an increased interest and use of post-consumer recycled materials in EWP production, potential contamination by the specified elements and phthalates must be considered. To ensure that EWPs made from used wood fibers do not contain ASTM F963 elements or phthalates that exceed the specified limits, TERA indicated that the materials would need to be sorted carefully and tested to ensure that they are not contaminated.

Adhesive Formulations

Adhesive formulations hold together the wood chips, layers, or fibers to make EWP mats and sheets. Some of the formulations use a metal catalyst during the curing

[15] Ecolabel element concentrations are less than 25 mg/kg of arsenic, 25 mg/kg of mercury, 25 mg/kg of chromium, 50 mg/kg cadmium, 90 mg/kg lead, and 40 mg/kg copper (EU, 2004). Ecolabel limits are similar to ASTM solubility limits for the ASTM F963 elements.

[16] Twenty-four percent of furniture and 18 percent of building materials had one or more ASTM F963 elements exceeding the limits which may be due to manufacturing processes such as painting, preservation, and overlaying, which are common with furniture and building materials. The most polluted types of wood waste were particleboard (37% exceeded Ecolabel limits), recycled particleboard (25% exceeded), and plywood (18% exceeded); while fiberboard (MDF and HDF) exceeded limits in 9 percent of samples.

process. TERA identified a number of references describing the presence of the ASTM F963 elements in adhesive formulations. However, TERA found very few references that would implicate EWPs. Although the use of barium was noted in multiple references, only one study appeared to be relevant to EWPs. This study suggested that barium, when used as a catalyst in an adhesive, could result in an EWP that exceeded the ASTM solubility level for barium.[17] However, this method does not appear to be used currently in EWP production. TERA also noted studies that indicate the possible use of chromium as a catalyst in phenol formaldehyde resin, as well as the possible use of antimony or arsenic in a drier formulation for certain polymeric coatings. However, no references included information on concentrations or appeared to be relevant to EWPs.

Although many different adhesive formulations may be used in hardwood plywood, TERA noted that PVAc can be used as an adhesive system for hardwood plywood. The report cited sources (The Handbook of Adhesive Technology, USDA), which mentioned the use of some of the specified phthalates in PVAc adhesive formulations.[18] TERA also identified research papers that included the use of DBP and DEHP in PVAc at concentrations greater than 0.1 percent.

[17] Wang and Zhang (2011) studied the use of calcium hydroxide, $Ba(OH)_2$, and magnesium hydroxide and their effect on cure times for phenol formaldehyde adhesive formulations, finding that the use of $Ba(OH)_2$ could be a viable means to speed up cure times. Both calcium hydroxide and $Ba(OH)_2$ had similar cure times and are about the same price in bulk. Because the compounds would be used in an adhesive system, the catalyst is not expected to be recovered and so would remain in situ once curing is complete. If the catalyst remained in the adhesive, it could result in concentrations of barium exceeding the ASTM solubility limits.

[18] The USDA publication Wood Handbook: Wood as an Engineering Material (2010) explains that "Plasticizers, for example dibutyl phthalate, are used to soften the brittle vinyl acetate homopolymer in poly(vinyl acetate) emulsion adhesives. This is necessary to facilitate adhesive spreading and formation of a flexible adhesive film from the emulsion at and below room temperature."

C. Discussion of Comments to the NPR

The CPSC received seven comments in response to the NPR. Five of the comments did not address any matters regarding EWPs. These comments addressed environmental regulation issues concerning alternative energy, electric cars, and greenhouse gas emissions, among other topics. None of these comments addressed EWPs. Accordingly, these comments do not fall within the scope of the current rulemaking. Two comments addressed the proposed determinations for EWPs.

Comment 1: A commenter states that the use of third party testing and "verification of testing" for lead is important for ensuring product safety and that any change to the testing and verification requirements is "antithetical" to public safety.

Response 1: The commenter does not provide any data or information about EWPs that would support a testing requirement for lead for certain untreated and unfinished EWPs. Nor does the commenter address the data and information the Commission relied upon to demonstrate that certain untreated and unfinished EWPs do not contain lead above the limits specified by the lead content requirements. The Commission's proposed EWP determinations only apply to EWPs that have not been treated or adulterated with materials that could result in the addition of lead, the ASTM elements, or the specified phthalates at concentrations greater than their specified solubility limits. EWPs that do not meet the provisions of the rule would still be subject to applicable testing requirements.

Comment 2: A commenter expresses concern regarding the language of the proposed rule's determination, which states: "Accessible component parts of children's products, children's toys, and child care articles made with engineered wood products not

listed in paragraphs (a)-(c) of this section are required to be third party tested pursuant to section 14(a)(2) of the CPSA and 16 CFR part 1107." The commenter asserts that the language negates the flexibility of the Commission's 2009 *Statement of Policy*. The commenter requests a revision of the language to state: "Accessible component parts of children's products, children's toys, and child care articles made with engineered wood products not listed in paragraphs (a)-(c) of this section must still be comprised of compliant materials pursuant to section 108 of CPSIA, Public Law 110-314 as amended by H.R. 2714, Public Law 112-28."

Response 2: The proposed EWP determinations do not negate the flexibility of the Commission's 2009 *Statement of Policy*.[19] That policy was intended to give general guidance on the types of materials that may contain phthalates. Section 108 of the CPSIA is limited to plasticized component parts and other materials that may contain phthalates. The Commission has already identified in the proposed rule the potential use of phthalates in polyvinyl acetate (PVAc) adhesive in hardwood plywood that would result in an EWP with phthalate concentrations greater than 0.1 percent. However, to make it clear that only products that are subject to one or more of the requirements for lead, ASTM elements, and the specified phthalates, or that contain post-consumer wood waste, must be third party tested, the Commission is revising the proposed language in section 1252.3(e). That section now states that accessible component parts of children's products, children's toys, and child care articles made with engineered wood products other than the specified EWPs listed in the rule, or that contain post-consumer wood

[19] https://www.cpsc.gov/s3fs-public/pdfs/blk_media_componenttestingpolicy.pdf

waste, are required to be third party tested pursuant to section 14(a)(2) of the CPSA and 16 CFR part 1107 and sections 101, 106, or 108 of the CPSIA, as applicable.

In addition, to reflect the current list of prohibited phthalates in section 108 of the CPSIA, as required in the Commission's final rule issued on October 27, 2017, § 1252.1(c) is revised to include all of the permanently prohibited phthalates in any children's toy or child care article that contains concentrations of more than 0.1 percent of DEHP, DBP, BBP, DINP, DIBP, DPENP, DHEXP, or DCHP.

D. Determination for EWPs

1. Legal Requirements for a Determination

As noted above, section 14(a)(2) of the CPSA requires third party testing for children's products that are subject to a children's product safety rule. 15 U.S.C. 2063(a)(2). Children's products must comply with the lead limits in section 101 of the CPSIA. 15 U.S.C. 1278a. Children's toys must comply with the solubility limits for elements under the ASTM toy standard in section 106 of the CPSIA. 15 U.S.C. 2056b. Children's toys and child care articles must comply with the phthalates prohibitions in section 108 of the CPSIA. 15 U.S.C. 2057c. In response to statutory direction, the Commission has investigated approaches that would reduce the burden of third party testing while also assuring compliance with CPSC requirements. As part of that endeavor, the Commission has considered whether certain materials used in children's products, children's toys, and child care articles would not require third party testing.

To issue a determination that an EWP does not require third party testing, the Commission must have sufficient evidence to conclude that the product consistently complies with the CPSC's requirements to which the EWP is subject, so that third party

testing is unnecessary to provide a high degree of assurance of compliance. Under 16 CFR part 1107, section 1107.2 defines "a high degree of assurance" as "an evidence-based demonstration of consistent performance of a product regarding compliance based on knowledge of a product and its manufacture."

For accessible component parts of children's products, children's toys, and child care articles subject to sections 101, 106, and 108 of the CPSIA, compliance to the specified content limits is always required, irrespective of any testing exemptions. Thus, a manufacturer or importer who certifies a children's product, children's toy or child care article, must ensure the product's compliance. The presence of lead, the ASTM F963 elements, or the specified phthalates do not have to be intended to require compliance. The presence of these chemicals, whether for any functional purpose, as a trace material, or as a contaminant, must be in concentrations less than the specified content or solubility limits for the material to be compliant. Additionally, the manufacturer or importer must have a high degree of assurance that the product has not been adulterated or contaminated to an extent that would render it noncompliant. For example, if a manufacturer or importer is relying on a determination that an EWP does not contain lead, ASTM F963 elements, or specified phthalates in concentrations greater than the specified limits in a children's product, children's toy, or child care article, the manufacturer must ensure that the EWP is one on which a determination has been made.

The Commission finds, based on the staff's review of TERA's Task 14 report regarding reclaimed or post-consumer waste assessment in EWPs, that EWPs with post-consumer wood content and post-manufacturing waste could contain unwanted contaminants, such as paint or stains, metals from nails or fasteners, or adhesive

formulations. Additionally, based on staff's review of the Task 11 and Task 14 reports, the Commission finds that PVAc used as an adhesive formulation in the manufacture of EWPs could contain at least one of the specified phthalates in hardwood plywood manufacturing that could result in the EWP exceeding the allowable levels of the specified phthalates. Accordingly, the Commission concludes that there is not a high degree of assurance that EWPs made from post-consumer wood waste or post-manufacturing treatments or finishes are compliant with sections 101, 106, or 108 of the CPSIA, or that hardwood plywood that contain PVAc are compliant with 108 of the CPSIA.

Based on the information provided in the TERA Task reports, staff's review of TERA's source references in the Task reports, and with the additional clarification that only products that are subject to one or more of the requirements for lead, ASTM elements, and the specified phthalates must be third party tested, the Commission determines that untreated and unfinished EWPs (particleboard, hardwood plywood, and medium-density fiberboard) made from virgin wood or pre-consumer wood waste, do not contain lead, or any of the specified elements in ASTM F963 in concentrations greater than their specified solubility limits. In addition, with the exception of hardwood plywood that contains PVAc adhesive formulations, the Commission determines that the specified EWPs do not contain any of the specified phthalates in concentrations greater than 0.1 percent. The Commission's determinations on EWPs are limited to unfinished and untreated EWPs made from virgin wood or pre-consumer wood waste. Children's products, children's toys, and child care articles made from post-consumer wood waste, or from EWPs that have other materials that are applied to or added on to the EWP after

it is manufactured, such as treatments and finishes, would be subject to third party testing requirements, unless the component part has a separate determination which does not require third party testing for certification purposes.

2. Statutory Authority

Section 3 of the CPSIA grants the Commission general rulemaking authority to issue regulations, as necessary, to implement the CPSIA. Public Law No. 110-314, sec. 3, Aug. 14, 2008. Section 14 of the CPSA, which was amended by the CPSIA, requires third party testing for children's products subject to a children's product safety rule. 15 U.S.C. 2063(a)(2). Section 14(d)(3)(B) of the CPSA, as amended by Public Law No. 112-28, gives the Commission the authority to "prescribe new or revised third party testing regulations if it determines that such regulations will reduce third party testing costs consistent with assuring compliance with the applicable consumer product safety rules, bans, standards, and regulations." *Id.* 2063(d)(3)(B). These statutory provisions authorize the Commission to issue a rule determining that certain EWPs would not be concentrations greater than their specified limits, and thus, are not required to be third determined to contain lead, the ASTM F963 elements, and the specified phthalates in party tested to ensure compliance with sections 101, 106, and 108 of the CPSIA.

The determinations for the specified EWPs would relieve children's product certifiers from third party testing burdens, while assuring compliance with sections 101, 106, and 108 of the CPSIA for component parts made from the specified EWPs. However, the determinations would only relieve the manufacturers' obligation to have the specified EWPs tested by a CPSC-accepted third party laboratory. Children's products, children's toys, and child care articles must still comply with the substantive

content limits in sections 101, 106, and 108 of the CPSIA, regardless of any relief on third party testing requirements. Finally, even if a determination is in effect and third party testing is not required, a certifier must still issue a certificate.

3. Description of the Rule

This rule creates a new part 1252 for *Children's Products, Children's Toys, and Child Care Articles: Determinations Regarding Lead, ASTM F963 elements, and Phthalates for Engineered Wood Products.*

- Section 1252.1(a) of the rule explains the statutorily created requirements that limit lead in children's products under the CPSIA and the third party testing requirements for children's products.
- Section 1252.1(b) of the rule explains the statutorily created requirements for limiting the ASTM F963 elements in children's toys under the CPSIA and the third party testing requirements for children's toys.
- Section 1252.1(c) of the rule explains the statutorily created requirements limiting phthalates for children's toys and child care articles under the CPSIA and the third party testing requirements for children's toys and child care articles. This section is revised to reflect the final rule issued on phthalates that permanently prohibits any children's toy or child care article that contains concentrations of more than 0.1 percent of di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), or benzyl butyl phthalate (BBP). In addition, in accordance with section 108(b)(3) of the CPSIA, 16 CFR part 1307 prohibits any children's toy or child care article that contains concentrations of more than 0.1 percent of diisononyl phthalate (DINP), diisobutyl phthalate (DIBP), di-*n*-pentyl phthalate (DPENP),

di-*n*-hexyl phthalate (DHEXP), or dicyclohexyl phthalate (DCHP).

- Section 1252.2 of the rule provides definitions that apply to part 1252.
- Section 1252.3(a) of the rule establishes the Commission's determinations that specified EWPs do not exceed the lead content limits with a "high degree of assurance," as that phrase is defined in 16 CFR part 1107.
- Section 1252.3(b) of the rule establishes the Commission's determinations that specified EWPs do not exceed the solubility limits for ASTM F963 elements with a "high degree of assurance," as that phrase is defined in 16 CFR part 1107.
- Section 1252.3(c) of the rule establishes the Commission's determinations that specified EWPs do not exceed the phthalates content limits, with the exception of hardwood plywood containing PVAc, with a "high degree of assurance," as that phrase is defined in 16 CFR part 1107.
- Section 1252.3(d) of the rule provides that accessible component parts of children's products, children's toys, and child care articles made with the specified EWPs, are not required to be third party tested pursuant to section 14(a)(2) of the CPSA and 16 CFR part 1107.
- Section 1252.3(e) of the rule is clarified to state that accessible component parts of children's products, children's toys, and child care articles made with engineered wood products not listed in paragraphs (a)-(c) of this section, or with post-consumer wood waste, are required to be third party tested pursuant to section 14(a)(2) of the CPSA and 16 CFR part 1107 and sections 101, 106, or 108 of the CPSIA, as applicable.

E. Effective Date

The Administrative Procedure Act (APA) generally requires that a substantive rule must be published not less than 30 days before its effective date. 5 U.S.C. 553(d)(1). Because the final rule provides relief from existing testing requirements under the CPSIA, the Commission concludes that 30 days is sufficient. Thus, the effective date is [**insert date 30 days after publication in the FEDERAL REGISTER**].

F. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601–612, requires agencies to consider the impact of proposed and final rules on small entities, including small businesses. Section 604 of the RFA requires that agencies prepare a final regulatory flexibility analysis (FRFA) when promulgating final rules, unless the head of the agency certifies that the rule will not have a significant impact on a substantial number of small entities. The FRFA must describe the impact of the rule on small entities. CPSC staff prepared a FRFA, which is summarized below.

CPSC staff's review shows that comprehensive estimates of the number of children's products, children's toys, and child care articles that contain component parts made from the specified engineered woods are not available. However, based on the number of domestic producers and sellers of these products, staff believes that a substantial number of small entities could be impacted by this regulation. Staff's review indicates that there are approximately 81,505 small firms that manufacture or distribute children's products, children's toy or child care articles (6,976 manufacturers + 26,124 wholesalers + 48,405 retailers). Even if only a small proportion of these firms manufacture or sell products using the EWPs of interest, staff finds that a substantial

number would benefit from the reduced testing burden. The impact of the determinations on small businesses would be to reduce the burden of third party testing for firms and are expected to be entirely beneficial. The current cost of testing, on a per-test basis, is reflective of the expected cost reductions that would result from the determinations, and are as follows:

- Lead - The cost of lead testing ranges from $50 to more than $100 per component through Inductively Coupled Plasma (ICP) testing. If one uses X-ray fluorescence (XRF) spectrometry, which is an acceptable method for certification of third party testing for lead content, the costs can be greatly reduced to approximately $5 per component. If a component part made with one of the specified engineered woods is painted, the component part would be exempt from the third party testing requirement, but the paint would still require lead testing.

- ASTM F963 Elements - Based on published invoices and price lists, the cost of a third party test for the ASTM F963 elements ranges from around $60 in China, up to around $190 in the United States, using ICP. This cost can be greatly reduced with the use of high definition X-ray fluorescence spectrometry (HDXRF), which is an acceptable method for certification of third party testing for the presence of the ASTM elements. The cost can be reduced to about $40 per component part. It should be noted that lead is one of the ASTM elements, so this testing would also cover the cost of lead testing for component parts.

- Phthalates - The cost of phthalate testing is relatively high: between about $125 and $350 per component, depending upon where the testing is conducted and any discounts that are applicable. Because one product might have multiple

components that require testing, the cost of testing a single product for phthalates could exceed $1,000 in some cases. Moreover, more than one sample might have to be tested to provide a high degree of assurance of compliance with the requirements for testing.

To the extent that small businesses have lower production or lower sales volume than larger businesses, these determinations would be expected to have a disproportionately beneficial impact on small businesses. This beneficial impact is due to spreading the costs of the testing over fewer units. However, small entities that need fewer third party tests may not qualify for discounts that some laboratories may offer their larger customers. In addition, the possible benefits associated with the determinations might be somewhat lower to the extent that firms were already taking advantage of component part testing as allowed by 16 CFR part 1109. Additionally, some firms have reduced their testing costs by using XRF or HDXRF technology, which is less expensive than ICP, and would reduce the marginal benefit of these determinations.

The determinations would not impose any new reporting, recordkeeping, or other compliance requirements on small entities. In fact, because the rule would eliminate a testing requirement, there would be a small reduction in some of the recordkeeping burden under 16 CFR parts 1107 and 1109 because manufacturers would no longer have to maintain records of third party tests for the component parts manufactured from these engineered woods for lead, the ASTM F963 elements, or the specified phthalates. Based on staff's review, the Commission finds that that the burden reduction from this determination rule could potentially result in significant benefits for a substantial number of manufacturers, importers, or retailers of the relevant product categories.

Under section 604 of the Regulatory Flexibility Act, a FRFA should include a "statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected." The final rule is itself, the result of CPSC's efforts to reduce third party testing costs consistent with assuring compliance with all applicable consumer product safety rules. Therefore, CPSC considered few alternatives, other than expanding the list of engineered woods for which determinations could be made. CPSC staff identified these three types of EWPs for study, based on stakeholder feedback, the likelihood of being used in products subject to children's product, children's toy, or child care article certification requirements, and available resources. However, the Commission did not receive any other comments or other information on any additional engineered wood materials for further burden-reduction activities.

G. Environmental Considerations

The Commission's regulations provide a categorical exclusion for most Commission rules from any requirement to prepare an environmental assessment or an environmental impact statement because they "have little or no potential for affecting the human environment." 16 CFR 1021.5(c)(2). This rule falls within the categorical exclusion, so no environmental assessment or environmental impact statement is required. The Commission's regulations state that safety standards for products normally have little or no potential for affecting the human environment. 16 CFR 1021.5(c)(1). Nothing in this rule alters that expectation.

List of Subjects in 16 CFR Part 1252

Business and industry, Consumer protection, Imports, Infants and children, Product testing and certification, Toys.

For the reasons stated in the preamble, the Commission amends title 16 of the CFR by adding part 1252 to read as follows:

PART 1252 – CHILDREN'S PRODUCTS, CHILDREN'S TOYS, AND CHILD CARE ARTICLES: DETERMINATIONS REGARDING LEAD, ASTM F963 ELEMENTS, AND PHTHALATES FOR ENGINEERED WOOD PRODUCTS

Sec.

Authority: Sec. 3, Pub. L. 110-314, 122 Stat. 3016; 15 U.S.C. 2063(d)(3)(B).

§ 1252.1 Children's products, children's toys, and child care articles containing lead, ASTM F963 elements, and phthalates in engineered wood products and testing requirements.

(a) Section 101(a) of the Consumer Product Safety Improvement Act of 2008 (CPSIA) provides that any children's product, material, or component part or a children's product must comply with a lead content limit that does not exceed 100 parts per million. Materials used in children's products subject to section 101 of the CPSIA must comply with the third party testing requirements of section 14(a)(2) of the Consumer Product

Safety Act (CPSA), unless listed in 16 CFR 1500.91.

(b) Section 106 of the CPSIA made provisions of ASTM F963, Consumer Product Safety Specifications for Toy Safety, a mandatory consumer product safety standard. Among the mandated provisions is section 4.3.5 of ASTM F963 which requires that surface coating materials and accessible substrates of children's toys that can be sucked, mouthed, or ingested, must comply with solubility limits that the toy standard establishes for eight elements. Materials used in children's toys subject to section 4.3.5 of the toy standard must comply with the third party testing requirements of section 14(a)(2) of the CPSA, unless listed in 16 CFR 1251.2.

(c) Section 108(a) of the CPSIA permanently prohibits any children's toy or child care article that contains concentrations of more than 0.1 percent of di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), or benzyl butyl phthalate (BBP). In accordance with section 108(b)(3) of the CPSIA, 16 CFR part 1307 prohibits any children's toy or child care article that contains concentrations of more than 0.1 percent of diisononyl phthalate (DINP), diisobutyl phthalate (DIBP), di-*n*-pentyl phthalate (DPENP), di-*n*-hexyl phthalate (DHEXP), or dicyclohexyl phthalate (DCHP). Materials used in children's toys and child care articles subject to section 108(a) of the CPSIA and 16 CFR part 1307 must comply with the third party testing requirements of section 14(a)(2) of the CPSA, unless listed in 16 CFR 1308.2.

§ 1252.2 Definitions.

In addition to the definitions given in sections 101, 106, and 108 of the CPSIA, the following definitions apply for this part 1252.

Post-consumer wood waste describes wood waste that is comprised of materials that are recovered from their original use and subsequently used in a new product. Examples of this type of waste include recycled demolition wood, packaging materials such as pallets and crates, used wood from landscape care (*i.e.*, from urban and highway trees, hedges, and gardens), discarded furniture, and waste wood from industrial, construction, and commercial activities.

Pre-consumer wood waste describes wood materials that have been recycled from an industrial process before being made available for consumer use. Examples of this type of waste include trimmings from engineered wood product (EWP) panel manufacturing, sawdust from cutting logs, or remaining wood pieces from sawing a log into framing lumber.

Unfinished means an EWP that does not have any surface treatments applied at manufacture, such as factory-applied coatings. Examples of such treatments may include paint or similar surface coating materials, wood glue, or metal fasteners, such as nails or screws.

Untreated means an EWP that does not have any additional finishes applied at manufacture. Examples of such finishes may include flame retardants or rot resistant finishes.

Virgin wood describes wood logs, fibers, chips, or layers that have not been recycled from a previous use.

§ 1252.3 Determinations for engineered wood products.

(a) The following engineered wood products do not exceed the lead content limits with a high degree of assurance as that term is defined in 16 CFR part 1107:

(1) Particleboard that is untreated and unfinished made from virgin wood or pre-consumer wood waste;

(2) Hardwood plywood that is untreated and unfinished made from virgin wood or pre-consumer wood waste; and

(3) Medium-density fiberboard that is untreated and unfinished made from virgin wood or pre-consumer wood waste.

(b) The following engineered wood products do not exceed the ASTM F963 elements solubility limits set forth in 16 CFR part 1250 with a high degree of assurance as that term is defined in 16 CFR part 1107:

(1) Particleboard that is untreated and unfinished made from virgin wood or pre-consumer wood waste;

(2) Hardwood plywood that is untreated and unfinished made from virgin wood or pre-consumer wood waste; and

(3) Medium-density fiberboard that is untreated and unfinished made from virgin wood or pre-consumer wood waste.

(c) The following engineered wood products do not exceed the phthalates content limits with a high degree of assurance as that term is defined in 16 CFR part 1107:

(1) Particleboard that is untreated and unfinished made from virgin wood or pre-consumer wood waste;

(2) Hardwood plywood that is untreated and unfinished made from virgin wood or pre-consumer wood waste and does not contain polyvinyl acetate (PVAc) adhesive formulations; and

(3) Medium-density fiberboard that is untreated and unfinished made from virgin wood or pre-consumer wood waste.

(d) Accessible component parts of children's products, children's toys, and child care articles made with EWPs, listed in paragraphs (a) through (c) of this section are not required to be third party tested pursuant to section 14(a)(2) of the CPSA and 16 CFR part 1107.

(e) Accessible component parts of children's products, children's toys, and child care articles made with engineered wood products not listed in paragraphs (a) through (c) of this section, or that contain post-consumer wood waste, are required to be third party tested pursuant to section 14(a)(2) of the CPSA and 16 CFR part 1107 and sections 101, 106, or 108 of the CPSIA, as applicable.

Alberta E. Mills, Secretary
Consumer Product Safety Commission

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