

Phthalates in Consumer Products Used or Present in the Home

Environmental Health Strategy Center
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Under Maine's Kid Safe Products Act, certain criteria must be met for chemicals to be named Priority Chemicals by the Maine Department of Environmental Protection. The purpose of this document is to demonstrate that the following four phthalates meet the criterion in Chapter 880 Section 4(B)(2)(c) for designation as Priority Chemical: "the chemical has been added to or is present in a consumer product used or present in the home."¹

Chemical Name	Acronym	CASRN
Dibutyl phthalate	DBP	84-74-2
Butyl benzyl phthalate	BBP	85-68-7
Di(2-ethylhexyl) phthalate	DEHP	117-81-7
Diethyl phthalate	DEP	84-66-2

Credible scientific evidence from several authoritative government agencies all supports the conclusion that these four phthalates are present in consumer products used in the home. In addition, several independent non-governmental organizations have confirmed this evidence. The evidence is summarized below with more comprehensive data included in the exhibits attached to this memo.

One important caveat must be remembered: none of these data sources below provide information on which specific phthalates are contained in consumer products subject to the Kid Safe Products Act and sold in the State of Maine. Each of these sources of data has serious limitations, even though they establish that the phthalates have been added to or are present in consumer products. Information on the limitations of each data set is included below.

1. Chemical manufacturers reported use of phthalates in consumer products to the United States Environmental Protection Agency.

The [EPA's Chemical Data Reporting website](#) provides direct evidence from phthalates manufacturers that the downstream use of the chemicals includes consumer products.² The Chemical Data Reporting (CDR) Rule requires chemical manufacturers (including

¹ Maine Revised Statutes 06-096 CMR Chap. 880: Regulation of Chemical Use in Children's Products, §4B2(c). [http://www.maine.gov/dep/bep/Citizen Petition/Chapter 882/Ex 8. Ch 880 Final Rule.pdf](http://www.maine.gov/dep/bep/Citizen%20Petition/Chapter%20882/Ex%208.%20Ch%20880%20Final%20Rule.pdf)

² Exhibit D-1: United States Environmental Protection Agency. Chemical Data Reporting. <http://epa.gov/cdr/>

importers) to submit information on the chemical they produce domestically or import into the United States during the principal reporting year every four years, the most recent data being from 2011. Exhibit D-1 shows which phthalates were reported in which product categories to the US EPA.

Data Limitations: The Chemical Data Reporting database only establishes phthalate use in broad product categories, not in specific consumer products.

2. The United States Department of Health & Human Services reports phthalate use in many household products.

The [Household Products Database](#) is managed by the Department of Health and Human Services in collaboration with the National Institutes of Health, National Library of Medicine Specialized Information Services.³ Diethyl phthalate (DEP) is listed as an ingredient in various arts & crafts supplies, auto products, home decorating supplies, and personal care products; BBP in arts & crafts supplies, auto products, home maintenance products, home decorating products, and yard and landscaping products; DBP in auto products, home maintenance products, home decorating products, and personal care products; and DEHP in home maintenance products. Exhibit D-2 is the exact lists of products that appear in the database when searched by phthalate.

Data Limitations: While the database demonstrates phthalate use in a variety of household products, it is limited by its reliance on the Material Safety Data Sheets (MSDS), which are notoriously incomplete and outdated. The MSDS only applies to chemically formulated products and therefore doesn't cover finished products that are known to contain phthalates, such as many vinyl products. Furthermore, it has a reporting threshold of intentionally added ingredients of 1%, which is much higher than what the threshold would be under KSPA.

3. Over ten years of surveys conducted by the Danish Environmental Protection Agency show phthalate use in a wide variety of consumer products used in the home.

Since 2001, [the Danish Environmental Protection Agency](#) has conducted 125 surveys of toxic chemicals in consumer products that provide evidence of DBP, BBP, DEHP, and DEP in product categories such as building products, home furniture and decorations, clothing, and beauty, personal care, and cleaning products.⁴ Exhibit D-3 lists products that were shown to contain DBP, BBP, DEHP, and DEP by the Danish EPA.

³ Exhibit D-2: United States Department of Health & Human Services. Household Products Database: Health & Safety Information on Household Products.

<http://householdproducts.nlm.nih.gov/cgi-bin/household/list?tbl=TblChemicals&alpha=A>

⁴ Exhibit D-3: Danish Environmental Protection Agency (2001-2013). Danish Surveys on Chemicals in Consumer Products. <http://eng.mst.dk/topics/chemicals/consumers-consumer-products/danish-surveys-on-consumer-products/>

Data Limitations: The data provided by the Danish EPA are specific to the European market, and some of it is up to 10 years old.

4. The European Chemicals Agency (ECHA) is scheduled to ban 3 phthalates that have been identified as Substances of Very High Concern (SVHCs).

The phthalates BBP, DBP and DEHP are in the first wave of chemicals scheduled to be banned by the European Chemicals Agency (ECHA) in February of 2015 [as Substances of Very High Concern](#).⁵ The same agency has issued [an authoritative report](#) titled “Annex XV Restriction Report: Proposal for a Restriction” documenting widespread use of phthalates in consumer products.⁶ The authorization list is included in Exhibit D-4, and Section B2 of the report, “Manufacture & Uses” is included as Exhibit D-5.

Data Limitations: These data are specific to the European market.

5. Manufacturers reported using phthalates in products to the state of Washington, as required by the state’s Children’s Safe Products Act

A number of product manufacturers [reported to the state of Washington](#) that they used DBP, BBP, and DEHP in products intended for or marketed to children, including footwear, clothing accessories, jewelry, arts and crafts supplies, baby supplies, clothing, bedding, and toys, and DEP in footwear, cosmetics and fragrances, toys and games, baby feeding and hygiene products, clothing, bedding, and artists’ supplies.⁷ Exact reporting information for each phthalate is included in Exhibit D-6.

Data Limitations: Data on phthalate use reported to Washington State are specific to products intended for or marketed to children and relies on one-time “spot” testing.

6. High levels of phthalates were found in children’s products and children’s and consumer packaging tested by the Washington State Department of Ecology.

The [Washington State Department of Ecology](#) recently conducted a series of product tests to evaluate compliance with the restrictions on phthalates in products intended for or

⁵ Exhibit D-4: European Chemicals Agency. Authorisation List for Substances of Very High Concern. <http://echa.europa.eu/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list>

⁶ Exhibit D-5: European Chemicals Agency (August 2012). Annex XV Restriction Report: Proposal for a Restriction. Section B2: Manufacture & Uses. http://echa.europa.eu/documents/10162/13641/restriction_report_phthalates_en.pdf

⁷ Exhibit D-6: State of Washington Department of Ecology. Children’s Safe Products Act: Search Data. <http://www.ecy.wa.gov/programs/swfa/cspa/search.html>

marketed to children under the Washington's Children's Safe Products Act (CSPA).⁸ The testing revealed substantial amounts of phthalates in a some children's products and children's and consumer packaging, including bath toys and cosmetics, footwear, and fragrances, and very high levels of phthalates (especially DEHP) in much of the plastic packaging that children's products come in. The report is included in Exhibit D-7.

7. Testing conducted by independent organizations reinforces the evidence of widespread phthalate use in consumer products in the home.

Testing done by multiple independent organizations that specialize in evaluating the presence of toxic chemicals in products reinforces the evidence of phthalates in products from governmental agencies.

The organization [HealthyStuff.Org](http://www.healthystuff.org) has conducted extensive product testing on the four phthalates and found them to be present in tablecloths, furniture, vinyl flooring, shower curtains, wall papers, garden hoses, inflatable swimming pools, plastic clothing such as raincoats, children's toys, automobile upholstery and tops. HealthyStuff.org testing has shown DEP in carpets, paints, and personal care products such as soap, shampoo, hair spray, nail polish, deodorants, and fragrances. Recently, the group conducted a study that showed [a range of products sold by Walgreens to contain phthalates](#),⁹ as well as [a study that found phthalates banned in children's products by the CSPC in 16 of 18 university themed products tested](#).¹⁰ Summaries of the findings of each report are included in Exhibits D-8 and D-9.

[A 2011 study conducted by Women's Voices for the Earth](#) detected DBP, BBP, DEP, and DEHP in cleaning products such as air sanitizers and multi-surface cleaning sprays produced by companies that claimed to have removed this class of chemicals from their products.¹¹ The full report is included in Exhibit D-10. [Recent testing by Clean Water Fund and the Healthy Legacy Coalition](#) found DBP, BBP, DEP and DEHP in house dust of several homes in Minnesota.¹² The full report is included in Exhibit D-11. [Testing conducted by Greenpeace in 2012](#) showed very high concentrations of phthalates including DEHP and BBP in clothing that bore a plastisol print of an image, logo, or text.

⁸ Exhibit D-7: Stone, Alex, Sc.D, Senior Chemist, WA State Department of Ecology, Hazardous Waste and Toxics Reduction Program (March 2014). Phthalates in Children's Products and Consumer and Children's Packaging. Washington State Department of Ecology.
<https://fortress.wa.gov/ecy/publications/publications/1404017.pdf>

⁹ Exhibit D-8: HealthyStuff.org (2014). Walgreens, will you Mind the Store?
<http://www.healthystuff.org/findings.04162014.walgreensMTS.php>

¹⁰ Exhibit D-9: HealthyStuff.org (2014). March Badness: Toxic University Stuff.
<http://www.healthystuff.org/findings.03192014.marchbadness.php>

¹¹ Exhibit D-10: Scranton, Alexandra (November 2011). Dirty Secrets: What's Hiding in Your Cleaning Products? Women's Voices for the Earth. <http://www.womensvoices.org/issues/reports/dirty-secrets/>

¹² Exhibit D-11: LaBo, Kim, Ande Saunders, and Kathleen Schuler (2014). Hidden Harm: Household Dust's Dirty Secret. Clean Water Fund and Healthy Legacy.
<http://www.cleanwateraction.org/files/publications/Hidden Harm - Household Dusts Dirty Secret.pdf>

Some products tested contained phthalates at levels of up to 37.6% by weight.¹³ The full report is included in Exhibit D-12.

Exhibits

- Ex. D-1. United States Environmental Protection Agency. Chemical Data Reporting on DBP, BBP, DEHP, and DEP. (<http://epa.gov/cdr/>)
- Ex. D-2. United States Department of Health & Human Services. Household Products Database: Health & Safety Information on Household Products. Data on DBP, BBP, DEHP, and DEP. (<http://householdproducts.nlm.nih.gov/cgi-bin/household/list?tbl=TblChemicals&alpha=A>)
- Ex. D-3. Danish Environmental Protection Agency (2001-2013). Data on DBP, BBP, DEHP, and DEP from the Danish Surveys on Chemicals in Consumer Products. (<http://eng.mst.dk/topics/chemicals/consumers-consumer-products/danish-surveys-on-consumer-products/>)
- Ex. D-4. European Chemicals Agency (ECHA). Authorisation List of Substances of Very High Concern. (<http://echa.europa.eu/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authorisation-list/authorisation-list>)
- Ex. D-5. European Chemicals Agency (August 2012). Annex XV Restriction Report: Proposal for a Restriction. Section B2: Manufacture & Uses (pp. 33-57). (http://echa.europa.eu/documents/10162/13641/restriction_report_phthalates_en.pdf)
- Ex. D-6. State of Washington, Department of Ecology. Children's Safe Products Act: Search Data on DBP, BBP, DEHP, and DEP. (<http://www.ecy.wa.gov/programs/swfa/cspa/search.html>)
- Ex. D-7. Stone, Alex, Sc.D., Senior Chemist, WA State Department of Ecology, Hazardous Waste & Toxics Reduction Program (March 2014). Phthalates in Children's Products and Consumer and Children's Packaging. Washington State Department of Ecology. (<https://fortress.wa.gov/ecy/publications/publications/1404017.pdf>)

¹³ Exhibit D-12: Greenpeace (2012). Toxic Threads: The Big Fashion Stitch-Up. <http://www.greenpeace.org/international/en/publications/Campaign-reports/Toxics-reports/Big-Fashion-Stitch-Up/>

- Ex. D-8. HealthyStuff.org (2014). Walgreens, will you Mind the Store?
(<http://www.healthystuff.org/findings.04162014.walgreensMTS.php>)
- Ex. D-9. HealthyStuff.org (2014). March Badness: Toxic University Stuff.
(<http://www.healthystuff.org/findings.03192014.marchbadness.php>)
- Ex. D-10. Scranton, Alexandra (November 2011). Dirty Secrets: What's Hiding in your Cleaning Products? Women's Voices for the Earth.
(<http://www.womensvoices.org/issues/reports/dirty-secrets/>)
- Ex. D-11. LaBo, Kim, Ande Saunders, and Kathleen Schuler (2014). Hidden Harm: Household Dust's Dirty Secret. Clean Water Fund and Healthy Legacy.
(<http://www.cleanwateraction.org/files/publications/Hidden Harm - Household Dusts Dirty Secret.pdf>)
- Ex. D-12. Greenpeace (2012). Toxic Threads: The Big Fashion Stitch-Up.
(<http://www.greenpeace.org/international/en/publications/Campaign-reports/Toxics-reports/Big-Fashion-Stitch-Up/>)