

Department of Legislative Services
Maryland General Assembly
2006 Session

FISCAL AND POLICY NOTE

House Bill 52 (Delegate Hubbard)
Health and Government Operations

Public Health - Phthalates and Bisphenol-A - Prohibitions - Toys, Child Care
Articles, and Cosmetics

This bill, beginning January 1, 2008, prohibits the manufacture, sale, or distribution of a toy, child care article, or cosmetic containing specified chemicals. Violators are subject to fines.

Fiscal Summary

State Effect: No effect in FY 2007. Potential minimal increase in general fund revenues beginning in FY 2008 due to the bill's penalty provision. No effect on expenditures.

Local Effect: No effect in FY 2007. Potential minimal increase in revenues beginning in FY 2008 due to the bill's penalty provision. No effect on expenditures.

Small Business Effect: Potentially significant increase in expenditures beginning in FY 2007 for small business manufacturers that would be required to change the chemicals they use for products affected by this bill.

Analysis

Bill Summary: A person may not manufacture, sell, or distribute any toy or child care article that: (1) contains bisphenol-a and is intended for use by a child under age three; (2) contains diethylhexyl phthalate (DEHP), dibutyl phthalate (DBP), or butyl benzyl phthalate (BBP) in concentrations greater than 0.1%; or (3) is intended for use by a child under age three if it can be placed in the child's mouth and contains diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), or di-n-octyl phthalate (DNOP) in concentrations

greater than 0.1%. A person must use the least toxic alternative when replacing the chemicals mentioned above and may not replace them with carcinogens rated by the U.S. Environmental Protection Agency (EPA) as A, B, or C carcinogens or with EPA-identified reproductive toxicants that cause birth defects, reproductive harm, or developmental harm.

A person may not manufacture, sell, or distribute any cosmetic containing DBP or DEHP.

Violating any provision of this bill is a misdemeanor offense with a maximum penalty of \$10,000 per violation upon conviction.

Current Law: The Health-General statute limits the manufacture or sale of certain items to protect the public's health. For example, statute prohibits a person from knowingly manufacturing, selling, renting, or offering for sale any toy depicting torture or resembling a torture device. This restriction does not apply to a toy gun or a model of an aircraft, ship, car, spacecraft, or other vehicle.

Background: Phthalates are industrial chemicals used in the production of plastics to make them flexible and durable. More than a billion pounds of phthalates are produced in the world each year, and everyone is exposed to phthalates on a daily basis.

Phthalates occur in small amounts as contaminants in food, indoor air, soils, and sediments and are often used in many everyday items. Specific examples of products containing phthalates include food wrapping, vinyl shower curtains, vinyl flooring adhesives, detergents, soap, shampoo, hair spray, and nail polish. Children's toys such as teething rings and rattles also contain phthalates. Two specific types of phthalates, DEHP and DINP, are more likely to affect children than adults because these phthalates are used to make toys.

Phthalate Research Conclusions Vary

Scientific panels, advocacy groups, and industry groups have analyzed the literature on phthalates and have reached differing conclusions about their safety.

The plastics industry argues that years of use of phthalates without visible harm prove that the products are safe.

In 2000, the Centers for Disease Control and Prevention (CDC) released the first substantial assessment of phthalate exposure in the United States by studying the urine metabolite residues of seven phthalates in 289 human urine samples. Levels were particularly high for DBP, and in the sample a disproportionate number of women of

child-bearing age had high levels of DBP. A 2003 CDC study on the phthalate exposure levels of 2,500 participants showed that the levels of exposure to each phthalate were well within the safety levels set by the EPA and that the exposure levels for DBP were about half of what had been indicated in the smaller sample from the 2000 study. The 2003 study also found that the levels of exposure to DBP for all women of child-bearing age were slightly lower than for other women.

The American Academy of Pediatrics issued a report in June 2003 entitled *Pediatric Exposure and Potential Toxicity of Phthalate Plasticizers* that recommended research on the effects of phthalates on the fetus and on infants. The report urged further study into the ways children are exposed to phthalates, and the effects of these compounds on pregnant and lactating women, premature and full-term infants, and young children, to better determine safe levels of exposure.

In May 2005, for the first time, academic researchers identified an association between pregnant women's exposure to phthalates and adverse effects on genital development in their male children. Those babies and toddlers who had the highest exposure to phthalates in the womb had the shortest distance between the anus and the penis when adjusted for weight – known as the anogenital index (AGI). In rodents, the AGI is a measure of demasculization of the male reproductive tract, and reduced AGIs develop into decreased sperm counts and lower testosterone levels. Researchers suspect that human babies with low AGIs will have reproductive problems when they mature because reproductive hormones in humans are similar to those in rodents.

Efforts to Restrict Phthalates in the United States

The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment added four phthalates – DBP, BBP, di-n-hexyl phthalate, and DIDP – to the list of chemicals that are known to the state to cause cancer or reproductive toxicity.

In 1998, the National Environmental Trust and 11 other organizations petitioned the U.S. Consumer Product Safety Commission (CPSC) to ban PVC and its primary plasticizer DINP in all toys and other products intended for young children. CPSC called for a voluntary phase-out of DINP by U.S. manufacturers in rattles and teethingers and dioctyl phthalate in pacifiers and bottle nipples. In 2003, CPSC voted unanimously to allow the continued use of PVC in toys for children five and under, ending the voluntary ban. A CPSC-commissioned report found that exposure to DINP from toys “would be expected to pose a minimal to nonexistent risk of injury for the majority of children.” The study found that young children mouth toys for an average of 1.9 minutes each day, and the

amount of DNP that leaches from the toys would be far below the acceptable daily intake of .12 mg/kg/day.

Phthalate Bans in Other Countries

In 2005, the European Union placed a permanent ban on certain phthalates in toys and child care articles. Three phthalates – DEHP, DBP, and BBP – are banned in all toys and child care articles where the concentration exceeds 0.1% by mass of the plasticized material. Three other phthalates – DINP, DIDP, and DNOP – (also at concentrations exceeding 0.1%) are banned from use in toys and child care articles for those articles that can be put in a child’s mouth. In 2004, the European Union prohibited the manufacture or sale of cosmetics containing DBP and DEHP, based on their reproductive toxicity.

In 2003, Japan imposed a ban on the use of phthalates in objects intended for the mouths of young children, such as pacifiers, bite rings, and teethingers.

Businesses Affected by the Bill

The Juvenile Products Manufacturers Association (JPMA) states that several of its members or representatives located in Maryland would be affected by this bill. However, whether any of those businesses have 50 or fewer employees could not be verified at this time. If a manufacturer can find a suitable alternative to the chemicals prohibited under this bill, JPMA estimates that using those alternative chemicals is likely to increase manufacturers’ costs by 10%, 5% of which the association estimates would be passed on to consumers in the form of higher prices for those products.

The U.S. Census Bureau’s *County Business Patterns* (2003) data states that the cosmetics industry in Maryland consists of eight establishments with an annual payroll of \$50 million and between 1,100 and 1,200 employees. The toys and games industry in the State has 10 establishments, an annual payroll of \$9.5 million, and 341 employees. The toys’ and games’ wholesale industry in the State consists of 32 establishments, 543 employees, and an annual payroll of \$19.7 million. Cosmetics distribution is part of a much larger category of “drugs and druggists’ sundries” which has 118 establishments in the State, 4,124 employees, and a \$207 million annual payroll.

State Revenues: No effect in fiscal 2007. General fund revenues could increase minimally beginning in fiscal 2008 under the bill’s monetary penalty provision for those cases heard in the District Court.

Local Revenues: No effect in fiscal 2007. Revenues could increase minimally beginning in fiscal 2008 under the bill's monetary penalty provision for those cases heard in the circuit courts.

Small Business Effect: Expenditures could potentially increase significantly beginning in fiscal 2007 for small business manufacturers that use the chemicals prohibited by this bill to make a toy or child care article intended for use by a child under age three or to make a cosmetic. While there are manufacturers in Maryland that would be affected by this bill, it cannot be determined at this time how many, if any, have 50 or fewer employees and would be considered small businesses.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Judiciary (Administrative Office of the Courts), Department of Business and Economic Development, Department of Health and Mental Hygiene, Juvenile Products Manufacturers Association, Department of Legislative Services

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