

SPOTLIGHT ON PHTHALATES

Phthalates are synthetic compounds that are used as additives in a myriad of consumer products because their properties add flexibility and other desirable characteristics.

Phthalates are commonly added to polyvinyl chloride (PVC), and are used in the manufacturing of packaging, textiles, flooring, and numerous cosmetics. Until just a few years ago, phthalates were used in very high concentrations to make children's toys soft and squishy, to make IV bags more pliable, to make artificial nails more flexible and less likely to crack, and as a solvent in cosmetics. A 2015 study of children's products by the Danish government found that 9 out of 41 products tested contained over 20% phthalates by weight [1]. Three years later, an enforcement project undertaken by the European Chemicals Agency (ECHA) found that every fifth second-hand toy contained restricted phthalates [2].

In recent years, scientists have linked exposure to the most common phthalates with a range of health impacts, including reproductive disorders, overweight, insulin resistance, asthma, and attention deficit hyperactivity disorder. Four of the most common phthalates [3] were among the first substances to be regulated at the European level under the authorisation process, and, with limited exceptions, can no longer be used in the EU. In the last few years, five more phthalates [4] have been regulated by the same process for their reproductive toxicity [5]. But even these examples only serve to demonstrate that we must act more quickly to regulate entire groups of these compounds, rather than tackling them one at a time.

1. The Danish Environmental Protection Agency, "Survey and health assessment of phthalates in toys and other products for children." 2015, [Online]. Available: <https://www2.mst.dk/Udgiv/publications/2015/06/978-87-93352-44-5.pdf>.

2. "Inspectors find phthalates in toys and asbestos in secondhand products - All news - ECHA," 2018. <https://echa.europa.eu/-/inspectors-find-phthalates-in-toys-and-asbestos-in-second-hand-products> (accessed Jul. 01, 2020).

3. Benzyl butyl phthalate (BBP), bis(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), and diisobutyl phthalate (DIBP).

4. bis(2-methoxyethyl) phthalate, dihexyl phthalate, diisopentyl phthalate, dipentyl phthalate, n-pentylisopentylphthalate.

5. ECHA, "Substance Information portal." <https://echa.europa.eu/substance-information/>.



PHTHALATES

POTENTIAL HEALTH IMPACTS:

Reproductive disorders, over-weight, insulin resistance, asthma, and attention deficit hyperactivity disorders

VISIT HEAL'S REPORT 'TURNING THE PLASTIC TIDE: THE CHEMICALS IN PLASTIC THAT PUT OUR HEALTH AT RISK' FOR MORE INFORMATION



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