



Two recent reports drive home the fact that phasing-out harmful chemicals is typically only the beginning of effective chemical policy rather than the end. Methyl bromide, widely used in the last decade as a fumigant in California and elsewhere, is a toxic volatile organic compound and is ozone-depleting to boot. Although efforts are underway to phase it out under the Montreal Protocol and the Clean Air Act, it appears that the likely substitutes are equally troubling. In late 2008 [EPA approved methyl iodide](#) as a replacement despite substantial evidence of its toxicity. Likewise, other alternatives—[particularly chloropicrin and methyl isothiocyanate-can significantly increase N₂O emissions](#), contributing to global warming. Most recently, last month [researchers at UC Irvine reported](#) that sulfuryl fluoride, yet another potential substitute for methyl bromide, is a potent, persistent greenhouse gas.

Another example of the “substitution effect” is the phase-out of phthalates. These substances, which are used to soften plastics, are often found in toys and child care products such as rubber ducks and teething toys. Last year, [California banned such uses of](#)



[certain phthalates](#), and the federal government followed California’s lead. The California law calls for manufacturers to use the least toxic alternative, and bars the use of known or suspected carcinogens or reproductive toxins. A good start, but given the fact that there is scant health and safety information for the majority of chemicals in commerce, it leaves quite a bit of room to manufacturers. In a report for Morning Edition, [reporter Sarah Varney went sleuthing](#), trying to discover what has or will replace phthalates in children’s products. One widely used replacement is DINCH, a citric acid ester in wide use in Europe and elsewhere. While European regulators have set exposure limits for DINCH based on health and safety testing by its manufacturer, there is no information available regarding how much DINCH could find its way into children chewing on DINCH-containing products. And so it goes.