

# Baby alert

## New findings about plastics

PARENTS MAY WANT TO REPLACE SOME BABY BOTTLES AND TEETHERS.

**T**here is growing debate about the potential health implications of the chemicals that leach from some plastics—especially their possible effects on babies. You may have seen headlines raising concerns about the soft vinyl teethers and toys that infants sometimes suck or chew. The Consumer Product Safety Commission has, as a precaution, recommended that parents dispose of any such items they own. Based on our own findings, we think the agency's advice is sound.

But soft vinyl isn't the only plastic used in baby products that may contain chemicals that have caused harm to lab animals. We also found that one such chemical leached into



simulated infant formula when we heated it in one type of clear plastic baby bottle.

Parents whose infants use plastic bottles and teethers shouldn't panic. It isn't yet known what risk, if any, the chemicals that can leach from some of these items may represent to humans. However, until more is known about their effects, it makes sense to limit exposure to them. That's especially wise when it comes to

infants, who could be at highest risk. Here's a rundown of our findings, and advice on what they may mean for parents:

### Teethers and soft toys

Mainly at issue here are items made from polyvinyl chloride (PVC), commonly known as vinyl. PVC's soft texture is imparted by "plasticizing" chemicals. The plasticizer most widely used in teethers is DINP, a member of the phthalate family of chemicals. Administered to lab animals at high doses, DINP has caused cancer and damaged the liver, kidneys, and other organs.

PVC is used for a range of soft toys and other items for infants, but the greatest concern is with teethers, since those are specifically designed to be "mouthed"—and the chewing action can break down the plastic, accelerating the release of chemicals. (Pacifiers and feeding-bottle nipples are made of latex or silicone, and so are not of concern.)

Six of seven widely available teethers we bought and tested last December were made of PVC and contained DINP. The Consumer Product Safety Commission has assured parents that "few, if any, children are at risk" because the amount of DINP they may ingest from mouthing PVC toys is well below the level believed harmful. However, the commission also said more studies are needed to fully assess DINP's possible effects on infants.

The Vinyl Institute and the Toy Manufacturers of America, the respective industry trade organizations, say that PVC toys and teethers, which have been used for 50 years, are safe. Still, most toy makers have indicated that they'll voluntarily comply with the commission's request to reformulate those products and switch to less controversial materials—including polyethylene or EVA plastic, which contain no plasticizers.

However, PVC teethers and baby toys remain on the shelves in some stores. Gerber, a major manufacturer, says it has withdrawn all phthalate-containing teethers from stores. However, most other manufacturers have pledged only to stop making any more such items. Since we bought our teethers, some major retailers, including Kmart, Sears, Target, Toys "R" Us, and Wal-Mart, have removed such items, and will now stock only products that manufacturers

### What to do *Precautionary steps*



#### Teethers

**Dispose of:** All teethers and heavily mouthed toys made of soft plastic. (One type of teether is shown above.)

**Replace with:** New items that manufacturers confirm are made from plastics that don't contain phthalates. Call the toll-free numbers usually found on packaging.

#### Bottles

**Dispose of:** All clear, shiny plastic baby bottles, unless the manufacturer tells you they're not made of polycarbonate.

**Replace with:** Bottles made of glass or an opaque, less-shiny plastic (the plastic bottles are often colored).



vouch for as phthalate-free. But in early March, our shoppers confirmed that many of the PVC teethingers we bought last year remained on the shelves at some retailers, such as major drugstore chains.

### Baby bottles

The question here focuses on baby bottles made from polycarbonate, a clear and rigid plastic. We bought six different bottles and heated plastic from each in simulated infant formula. The plastic from each of the bottles leached into our test formula a chemical called bisphenol-A, which in lab animals has produced physiological effects similar to those produced by estrogen. During such "endocrine disruption," chemicals interfere with or mimic the action of hormones, possibly upsetting normal development. (See our June 1998 report, which included tests for chemicals that can leach from certain plastic wraps into fatty foods.)

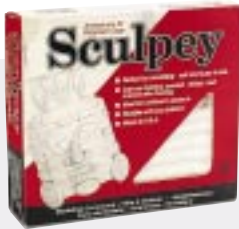
Based on testing with an intact bottle, we calculate that a typical baby who drank formula sterilized by heating in the bottle would be exposed to a bisphenol-A dose of about 4 percent of an amount that has adversely affected test animals in studies by Frederick vom Saal, professor of biological science at the University of Missouri, Columbia.

Such exposure may sound very low. However, safety limits for infant exposure can be set as low as 0.1 percent of the level that has adversely affected animals. Babies who used the bottles we tested could be exposed to a bisphenol-A dose 40 times higher than that conservative definition of safety.

George Pauli, the director of the division of product policy at the Food and Drug Administration, said the agency has looked into bisphenol-A leaching, and it stands by its decades-old approval of polycarbonate baby bottles as safe. We think the FDA needs to re-examine the issue in light of our data and recent concerns about the sensitivity of babies to the estrogenlike effects of chemicals such as bisphenol-A.

### Recommendations

**Teethers.** The Consumer Product Safety Commission has created a



**Safe to bake** We tested four brands of moldable clay made from bakable, heavily plasticized PVC. All four clays, including Sculpey (shown here), released essentially no plasticizers when baked according to the manufacturer's instructions.

Chronic Hazard Advisory Panel, which the agency hopes will report in about a year on the safety of PVC, phthalates, and alternative substances.

Meanwhile, we recommend that parents of young children follow the commission's advice to dispose of all PVC teethingers and soft toys used by infants "as a precaution," and

to replace them with items that are phthalate-free.

To increase your chance of finding phthalate-free items, shop at one of the stores that have pledged to stop selling heavily mouthed baby products with phthalates, including Kmart, Sears, Target, Toys "R" Us, and Wal-Mart.

If you shop elsewhere, avoid using the item until you call the manufacturer's toll-free number you'll find on the product packaging. Return the item to the store if it isn't phthalate-free.

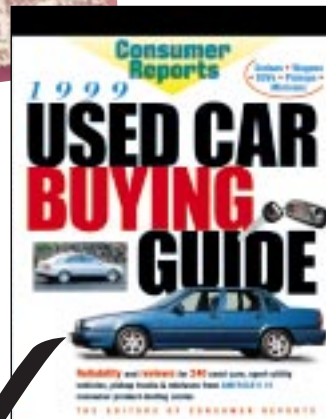
**Baby bottles.** Just to be safe, to avoid any possible exposure to bisphenol-A we advise parents of young children to dispose of polycarbonate baby bottles and replace them with bottles made of glass or polyethylene, an opaque, less-shiny plastic that does not leach bisphenol-A.

Unfortunately, plastic baby bottles do not explicitly indicate that they're made of polycarbonate. But there are some ways you can tell; see "What to Do," at left. Or you could call the manufacturer's toll-free number, listed on the package.

It shouldn't be this difficult for parents to make an informed choice about plastic items for their babies. The Children's Environmental Protection and Right to Know Act, a welcome bill introduced in May 1998 by Rep. Henry Waxman, D-Calif., would require disclosure to the government of potentially toxic chemicals used in children's products. If implemented, that requirement would eventually allow parents to consult, say, a government web site for information on the composition of plastic toys. Right now, it would help if manufacturer's web sites included this information.



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