BPA AND PHTHALATES BY THE NUMBERS

The Society of the Plastics Industry introduced today's recycling code system in 1988, when many communities in the United States were starting recycling programs. The codes—which usually appear on the bottom of bottles and other products—are mainly used to identify which plastics are amenable to recycling. While BPA and phthalates are considered potentially harmful, other chemicals used in plastics manufacture have not been studied as thoroughly and may have unknown effects.

CODE	 PET	 HDPE	 V
PLASTIC	**Polyethylene teraphthalate**	**High-density polyethylene**	**Polyvinyl chloride (plasticized and unplasticized)**
CHARACTERISTICS	Clear, smooth, and flexible; lightweight, designed for one-time use	Relatively stiff	Flexible, clear (plasticized) Hard, rigid, can be clear (unplasticized)
EXAMPLES OF USES	Individual bottles for water, juices, salad dressing; jars for peanut butter, pickles; mouthwash bottles; salad dressing and vegetable oil containers	Milk bottles, detergent bottles, grocery bags, freezer bags	Blood bags and tubing, PVC pipes and siding, detergent bottles, shampoo bottles, cooking oil bottles, fruit juice bottles, clear food packaging, medical equipment, cosmetics, toys
HEALTH ISSUES	**Not known to contain BPA or phthalates. Not recommended as reusable bottles due to potential bacteria buildup. Also contains antimony, a possible carcinogen.**	**Not known to contain BPA or phthalates.**	**Plasticized PVC may contain phthalates, which have been linked in animal studies to reproductive health problems.**

HOW DO YOU KNOW IF IT HAS BPA?

Polycarbonate plastic products are coded with the number 7, the word "Other," or the initials "PC" (which is specific for polycarbonate). But not all polycarbonates are labeled, because the recycling code system is a voluntary industry system, not federal law. Clear and hard plastics in a variety of colors are likely to be polycarbonate if they have the number 7 on them.

4 LDPE	5 PP	6 PS	7 OTHER 7 PC
Low-density polyethylene	**Polypropylene**	**Polystyrene and expanded polystyrene**	**Polycarbonate and others not in 1-6 (includes acrylic, nylon, polyurethane)**
Soft, flexible, translucent, solvent-resistant	Hard, flexible, translucent or transparent, good chemical resistance	Clear, glassy, rigid, brittle, opaque, not resistant to fats and solvents (polystyrene) Lightweight foam, heat-insulating (expanded)	Clear, hard, shatter-proof (polycarbonate)
Garbage bags, squeeze bottles, frozen foods packaging, dry cleaning bags	Containers for yogurt, margarine, medicine bottles, toys, drink bottles, ketchup bottles	To-go food containers, aspirin bottles, foam packing, insulated coffee cups, yogurt and dairy containers, vending cups, meat trays (one brand is Styrofoam)	3- and 5-gallon water cooler bottles, plastic to-go coffee mugs, some dental fillings, clear hard plastic re-usable water bottles, medical equipment
Not known to contain BPA or phthalates.	**Not known to contain BPA or phthalates.**	**Not known to contain BPA or phthalates.**	**Polycarbonate plastic contains BPA, a chemical that has been linked in animal studies to developmental, reproductive, and metabolic health problems.**

REFILL THOSE CODE 1 BOTTLES?

Do you refill and reuse those code 1 water bottles? Many people do, but experts recommend that you toss them after first use into the recycling bin. Bacteria can build up inside and the plastic can disintegrate, explains HSPH's Russ Hauser: "The primary concern is with bacterial contamination. The other concern is if you're washing it, you can release the chemicals in the plastic. Any kind of abrasion leads to leaching. Microscratches, heating, and acids help break down plastics. Plastic used for code 1 bottles also contains a metal called antimony, a possible carcinogen."