An education in plastics

You've undoubtedly heard the buzz about certain plastics and their potentially harmful toxic contents. As the bad news surrounding bisphenol A has traveled, consumers have learned that the little number seven contained in the triagle on the bottom of plastic is bad. The question is, do you know exactly *what* makes it bad? Or what the numbers one through six mean and if they are considered safe? There's no need to wonder any longer. See our brief breakdown of what each number tells you about the type of plastic the item contains and how it is recycled.

1 - Polyethylene Terephthalate (PET)
Your plastic Coke bottle or microwave dinner tray is likely made from PET because of it's abilitiy to act as an effective barrier to moisure and gas. Other food and non-food containers are often made from this type of plastic, which is also the most commonly recycled variety.

Recycling potentioal: PET that is cleaned and recycled is often used to spin fiber for carpet yarns and produce fiberfill and geotextiles.

2- High Density Polyethylene (HDPE)
Another good moisture barrier, this plastic is usually turned into milk, juice, margarine, yogurt and laundry containers. The pigmented HDPE bottles are more resistant to stress cracks and chemicals, and are ideal for products that have a longer shelf life, such as household chemicals and detergents, while the unpigmented bottles are better for products that aren't meant to last as long.

Recycling potential: Can be turned into traffic cones, pipe, trash cans, flower pots, outdoor furniture and, fittingly enough, recycling bins.

3 - Polyvinyl Chloride (PVC)
PVC is used in too many everyday items to list, however some of the more common ones include plastic food wrap, credit cards, packaging, window frames, pipes, wallpaper and window blinds. Unfortunately is also releases the toxic chemical dioxin during production, and can also be responsible for leaking harmful chemicals both when using and disposing of products made from the material. In previous studies, PVC was linked to occurrences of cancer, kidney damaged and reprofiductive interference in animals. It is also not easily recyclable, thus often ending up in landfills.

Recycling potential: Often used to produce drainage pipes, traffic cones, house siding, tiles and hoses.

4- Low Density Polyethylene (LDPE)
When heat sealing is necessary, low density polyethylene is often used thanks to its low melting point, as well as being tough and flexible. Retail, grocery, trash and dry cleaning bags are usually made from this type of flexible film plastic. It is also used for certain flexible lids and bottles, while its stable electrical and processing abilities make it ideal for wire and cable applications.

Recycling potential: It can be turned into the same item it once was. How is that for convenient?

5- Polypropylene (PP)
Polypropylene has a variety of functions because it is resistant to chemicals and heat. Its high melting point and low density make it ideal to use for flexible and hard packaging, fibers and automotive and consumer products with large molded parts. More commonly you'll find it as your screw-on lid for yogurt, margarine and juice bottles, as well as drinking straws and auto battery cases.

Recycling potential: Can be converted into auto parts, new auto battery cases, bird feeders, golf equipment, furniture and industrial fibers.

6 - Polystyrene (PS)
You're probably quite familiar with polystyrene or its more common name, Styrofoam. Often times when you order a takeout dinner container, you're using polystyrene. It's ability to remain rigid or be turned into foam make it a popular choice for containers, cups, lids and egg cartons. Polystyrene often comes in clear, hard and brittle format nad has a low melting point. The light weight and slow scrap value of the material make it difficult to recycle and it takes roughly 900 years for expanded polystyrene foam to decompose in the earth.

Recycling potential: Packing peanuts, videotape cassettes, reusable cafeteria trays and insulation board are common second uses for polystyrene.

7 - Other (usually a mixture of resins)
Often made from polycarbonate, number seven plastics have developed a nasty reputation since the news that there is a high probability bispenol A causes prostate and breast cancer, as well as messes with hormone levels. It's scary to think this is the stuff contained in baby bottles and your hard plastic water bottles. This is usually a composite plastic made with resins, fiber reinforcements or fillers. The plastic is highly popular due to its durability and can be found in items such as automotive goods.

Recycling potential: Despite its popularity, few products are made from number plastic as it is very difficult to recycle.

Don't worry if you find all of the numbers a bit confusing at first. Plastics are an odd thing that don't seem to follow any hard and fast rules. Above all, remember you aren't the first person to question how plastics and their production work. Hopefully this just gives you a better understanding of the numbers so the next time you're in a store and spot someone looking at a number five margarine container with a look of confusion, you can enlighten them with your newfound knowledge.

Page Title