

Recycling by the Numbers...

Submitted by Luigi Lupo

Member, Harrison Township Environmental Commission

The perplexity over what we can and cannot recycle continues to confuse many of us. Plastics are especially troublesome, since different types of plastic require different processing to be reformulated and re-used as raw material. Some municipalities accept all types of plastic for recycling, while others only accept jugs, containers and bottles with certain numbers stamped on them.

So let's recycle plastics by the numbers. The symbol code we're familiar with—a single digit ranging from 1 to 7 and surrounded by a triangle of arrows—was designed by The Society of the Plastics Industry (SPI) in 1988 to allow consumers and recyclers to differentiate types of plastics while providing a uniform coding system for manufacturers. The numbers identify the type of plastic and help recyclers do their jobs more effectively.

Number 1: designates the easiest and most common plastics to recycle and are made of polyethylene terephthalate (PETE). Examples include soda and water bottles, medicine containers, and many other common consumer product containers. Once it has been processed by a recycling facility, PETE can become fiberfill for winter coats, sleeping bags and life jackets. It can also be used to make bean bags, rope, car bumpers, tennis ball felt and combs.

Number 2: is reserved for high-density polyethylene (HDP) plastics. These include heavier containers that hold laundry detergents and bleaches as well as milk, shampoo and motor oil. Plastic labeled with the number 2 is often recycled into toys, piping, plastic lumber and rope. Like plastic designated number 1, it is widely accepted at recycling centers.

Number 3: are plastics less commonly recycled. These items are made of Polyvinyl chloride (PVC), commonly used in plastic pipes, shower curtains, medical tubing, vinyl dashboards, and even some baby bottle nipples.

Number 4: are wrapping films, grocery and sandwich bags, and other containers made of low-density polyethylene (LDP).

Number 5: These are polypropylene containers used in Tupperware, among other products. These are plastics that few municipal recycling centers will accept due to their very low rate of recyclability.

Number 6: Goes on polystyrene (Styrofoam) items such as coffee cups, disposable cutlery, meat trays, packing “peanuts” and some insulation. It is widely accepted because it can be reprocessed into many items, including cassette tapes and rigid foam insulation.

Last, but far from least, are items crafted from various combinations of the aforementioned plastics or from unique plastic formulations not commonly used. Usually imprinted with a **Number 7** or nothing at all, these plastics are the most difficult to recycle and, as such, are seldom collected or recycled. More ambitious consumers can feel free to return such items to the product manufacturers to avoid contributing to the local waste stream, and instead put the burden on the makers to recycle or dispose of the items properly.

Plastic recycling is not nearly as simple as recycling other materials. Because of the variation in the types of plastics, only plastics of the same type can be melted together. Otherwise, the plastics will separate as liquids and cause the recycled material to have different strengths and properties, depending on the layer of plastic. So, plastic recycling is done by sorting and melting down similar types of plastic and re-using the product of those melts.

Many recycled plastics are sold to companies as “post-consumer product” for use in new products. The quality of these products is not jeopardized because the same plastic that would have been used for the product is replaced with recycled plastic of the same nature. Recently, plastics have been used in the creation of new road surfaces, which is a great product of plastic recycling due to its addition of strength to the road surface and economical use of plastic that would normally damage the environment. Whatever happens to the plastic we recycle, it is important that plastic recycling be practiced because plastics decompose in landfills at an incredibly slow rate, which severely damages the environment.

As residents of Gloucester County, we are responsible for single stream recycling number 1 and number 2 plastics without lids in our standard recycling bins. To recycle all other numbered plastics or to obtain a recycling can, please contact the Gloucester County Solid Waste Complex at 856-478-6045. Please help us make Gloucester County not only greener but a safer place to live.