

1-2-3's of Recycling Plastics

By Ira Krepchin and Barbara Herson/ Special To The Tab

Wednesday, October 5, 2005

What to do with all that plastic! In the hit '60s movie "The Graduate," the one word career counseling that Dustin Hoffman's character, Benjamin Braddock, heard was "Plastics." While Braddock didn't follow that advice, plenty of people did, so that today that material, the antithesis of biodegradable, is everywhere in the environment. And one word doesn't cover it.

However, seven numbers go a long way towards understanding plastics, at least from a recycling perspective. We're all familiar with the "chasing arrows" symbol - the set of arrows arrayed in a triangular pattern around a number that ranges from one through seven. Contrary to popular belief, that symbol does not indicate recyclability; it's simply the industry standard way of denoting the type of plastic that a container is made of. The plastics represented by the different numbers have different characteristics, such as different melting points and different additives, which affect the way they can be recycled.

In Newton, we're fortunate that we can recycle all seven types- - our processing plant in Charlestown has markets for all of them. The company puts the recyclables onto a conveyor belt and sorts and cleans them before sending them on for remanufacturing. (To see the process in action, join us on a recycling tour on Oct 27. See calendar for details.) Types 1 and 2 are the easiest to handle and many communities limit their programs to those items. Type 1, known as PET, for polyethylene terephthalate, is typically used for soda bottles; it is easy to sort and clean, and can be used to make a range of products, including carpet fibers, fleece and plastic film. New PET material is expensive, which increases the incentive for recycling. Type 2 plastic, HDPE for high density polyethylene, is used for milk and detergent bottles - it's a little harder to clean, but it can be recycled into a number of products, including pallets, compost bins and detergent bottles.

Numbers do not tell the whole story. Take those plastic bags that you carry your groceries home in. They are usually made of #2 plastic, but they contain various dyes, plasticizers, UV inhibitors, softeners and other chemicals required to make them into a film. This mix of additives changes the properties of the plastic and make it incompatible with the plastic used to make bottles. Therefore, it is important that you place only stiff plastic containers numbered 1-7 in your green bin for recycling. Those grocery bags can either be reused or brought back to the store for recycling. They can also be woven together to form a durable tote bag that keeps the plastic out of the waste stream (contact Barbara Herson at 617-7961000 for instructions and patterns).

Then there is Styrofoam; although it may have arrows on it, and it is labeled #6, in fact is not plastic, so Newton cannot recycle it.

Recycling is only one part of the environmental picture for plastics. Plastics degrade through the recycling process, and unlike glass, typically can't be reused for their original purpose unless they are mixed with new materials. Recycling plastics in these products also does nothing to reduce the demand for making new plastic packaging. If, instead,

manufacturers would reuse plastic in their packaging, the need for resource extraction would diminish. The rug industry, for instance, uses both recycled and virgin plastic to make polyester fiber. Some computer manufacturers are working to redesign their products for easy dismantling, reuse of components and recyclability. (For now, you can recycle old computers at Newton's Rumford Avenue facility.)

From the consumer perspective, source reduction is far preferable to recycling for many types of plastic, and it isn't difficult to do. So whenever possible, please use refillable containers, buy in bulk, buy products that don't need much packaging or products that come in recyclable and recycled packages.

Ira Krepchin is on the board of the Green Decade Coalition. Barbara Herson is Newton's recycling coordinator and is on the Board of Advisors of the Green Decade Coalition.