

## Why is recycling so confusing?

It happens to us all: you're away from home and you find yourself with a container or package that you'd like to recycle. Which bin does it go in? Cap on or off? Is it even really recyclable? Recycling often isn't as simple as we would like and the rules seem to change from town to town, and region to region. So, why is recycling so confusing?

Recycling is a system. Recyclable wastes go into the system, are processed into a marketable material, and are shipped to market for reuse. Recyclable wastes have to be prepared to enter the system; they need to be sorted and collected, contamination (i.e. non-recyclable items) has to be removed, and the recyclables need to be containerized for the processing facility. Processing facilities typically further sort the recyclables: changing the physical properties of the materials, such as reducing plastics to pellets, and containerizing the material for market. At the end of the process, a market for the material has to exist, otherwise, recycling is not economically viable and the whole system falls apart.

Product packaging comprises a significant portion of the recycling stream. However, companies that make consumer goods are primarily concerned with safely getting a product from point A to point B; the actual recyclability of the packaging is a secondary concern. This is evident in the wide variety of plastics used in modern packaging. If you look on the bottom of most plastic bottles or containers, you'll see a "chasing arrows" symbol with a number. Although you might assume that this means the item is recyclable, this is not always the case.

The #1-#7 plastics numbering system located inside the chasing arrows **only** indicates the type of resin used to make the plastic item, but it does not guarantee that there are recycling systems in your area that can process that type of plastic or packaging. Recyclability of most materials is subject to whether local infrastructure is capable of handling them, and whether there are reliable resale markets for the material. This can vary regionally. Moreover, the packaging industry tends to develop new types of packaging much more quickly than recycling infrastructure and markets can adapt. For example, the recycling industry is still adapting to aseptic cartons (e.g. milk cartons), which are made with a combination of plastic and paper, and can only be recycled in certain municipalities. Further complicating the recycling landscape is the advent of single stream recycling. Many experts would agree that this system of mixed recycling has decreased consumer engagement with what is and is not recyclable. Additionally, because everything goes in the same bin, single stream invites contamination, as many people engage in "wishful recycling" - hoping they are doing the right thing by placing shopping bags or plastic tarps in the bin and keeping them out of the regular trash. Ultimately, this creates a compromised recyclables stream that is only suitable for certain markets, most of which are overseas. Recently those export markets are reacting to the contamination. China has announced that it will impose much tighter contamination thresholds and will outright ban certain categories of recyclables.

The change in China's acceptance protocol has sent shock waves throughout the recycling industry and has left many recycling haulers scrambling to clarify standards and find alternative markets. For the near term, if you have questions, the best thing you can do is check with your local transfer station or recycling service to see what they accept and how they want it sorted. For the long term, the packaging and recycling industries will need to put their heads together to establish a standardized system. In the end, China's ban will probably be a good thing for recycling as it forces a critical conversation about what's broken so that, perhaps, we can figure out a recycling system that is less confusing for everyone.

*Reprinted with permission from NHDES*