

## Soda and Water bottles - PET and its Safety for Use

The previous posts dealt with different harmful types of chemicals used in the manufacture of plastics and their effects on human health. We explained in the last article about the dangers of phthalates and its different types. One kind of phthalates, not categorized as phthalate commonly, PET or polyethylene-terephthalate, is safe for use to an extent. Read more to find out about its properties, uses and safety for use.

PET is actually a form of polyester and is the most common form of polyester. The plastics made with PET are lightweight, shatter resistant and sturdy. PET can be recycled completely to make new products. For example, recycled PET from bottles can be used to make synthetic fiber for carpets and t-shirts or fiberfill for winter coats and sleeping bags! These properties make it ideal for use in food containers and beverage bottles.

The issue with most plastic food and beverage containers, as previously discussed, is that the harmful chemicals leach into the contents and affect the human health negatively. So what makes PET safe to use? PET compounds do not leach into the contents of the container. Even if they do, they do so in small amounts not harmful to the human body. This makes it a popular choice for containers. The resin code #1 is found printed on the bottom of the container indicating that it is made out of PET and is safe to use.<sup>1</sup>

PET is most commonly used in food packaging suitable for use with microwave and soda bottles. As with any material, you should be aware of the limitations of the use of PET packaging material too. Most manufactures print the re-usage details on the container. Some microwave food containers and PET bottles are supposed to be used just once. This is because repeated usage can cause the chemicals to break down. The varying temperatures at which the bottle is stored and the accumulating bacteria can be very harmful if the bottle is used repeatedly.

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<sup>1</sup> The Safety of Polyethylene Terephthalate (PET). Plasticsinfo.org. <http://www.plasticsinfo.org/Main-Menu/MicrowaveFood/Need-to-Know/Plastic-Bev-Bottles/The-Safety-of-Polyethylene-Terephthalate-PET.html>. Accessed 26 October 2013.

There are some PET bottles safe to be re-used, but if the details printed on the bottles indicate that they are specific for using once, then dispose the bottle soon after use. Most ordinary water and soda bottles are one-time use only.

In addition, some containers are specific to be used for their intended purpose only. For example, a water bottle might not be suitable for storing other beverages. Other liquids might cause reaction and upon storage may lead to the breakdown of the plastic and release of harmful chemicals into the contents. Therefore, if the manufacture has clearly stated instructions on how to use the bottle and whether or not to use it, comply with those instructions.

Food and Drug Administration (FDA) regulates the manufacture of all packaging materials very rigorously. FDA in most countries have declared the use of PET containers safe but it is important to note if the manufacturer clearly states any instruction regarding the use of the container. Reusing bottles for different purposes than what they were intended for and storing contents in it for a long time are not worth the risk they pose to our health.