



## Plastic bottles are not trash



PET bottles are a valuable resource. When discarded on landfill sites, instead of recycled, that value is lost.



**100%** Recyclable  
Useful

(Confirm with PETCO that your PET bottles are designed for optimum recycling in South Africa).



Recycling 1 ton of PET bottles save 1.5 tons of CO<sup>2</sup> emissions.



There are many different ways of recycling plastic bottles. Curbside recycling takes place in some areas. Sometimes you have to take your recyclables to a nearby drop-off centre.

**www.**



Find your nearest **drop-off site** and **buy-back centre** for recyclables on [www.mywaste.co.za](http://www.mywaste.co.za)



Recycling plastic bottles decreases the need for raw materials and saves energy.

Reduce,  
Reuse,  
Recover  
and  
Recycle

Do not let your plastic bottles end their valuable lives on a landfill.

## How 2

This guide is part of the

**SERIES** on **Plastics** and Related Issues

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TRUTH OR MYTH?

## How 2

know the difference  
when it comes to

# Plastic Water Bottles

Can I reuse my  
PET bottle?

Is it **safe** to leave  
my plastic water bottle  
in a **hot car**?

What about  
BPA?

**PET** (Polyethylene Terephthalate) bottles have received a great deal of media attention recently, raising questions about

PET safety ...

### Where can I find more information?



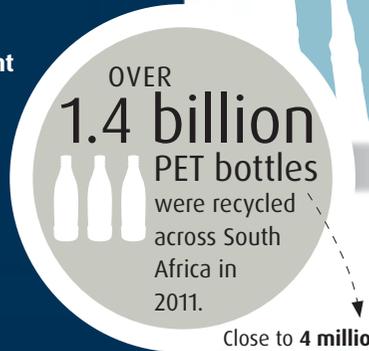
# Plastic Water Bottles



PET

What are plastic water bottles made from? PET (Polyethylene Terephthalate), is a by-product of the oil refinement process; it is not manufactured from virgin crude.

- are a preferred beverage packaging option.
- They have a **light environmental footprint**,
- are **safe**,
- **BPA free**,
- **reusable** and **recyclable**.



## Why bottled water?

Like the planet we inhabit, our bodies comprise mostly of water. Water, in all its forms, is therefore a vital component of our diet, as well as a healthy beverage option.

**100% RECYCLABLE**

## How many PET bottles are recycled?

According to PETCO, the PET plastics industry body responsible for the recycling of post-consumer PET, it achieved an annual rate of 42% of post-consumer beverage PET recycling in 2011. **The target for 2015 is 50%.**

Close to **4 million bottles** recycled every day.



## Did you know?

It takes **35 recycled water bottles** to produce a **polar fleece jacket**.



The carbon footprint of plastic water bottles can be reduced by **25%** if consumers simply recycle the bottles.

**BPA free**

## Your Questions Answered

### Is PET a safe packaging option?

Yes, the inert PET bottle is a well-accepted package all over the world and is completely safe to drink from. It is also reusable, recyclable, durable, lightweight and eco-friendly. It can be identified by a small number '1' in a triangle on the container. Alternatively, the letters 'PET' will be stamped on the bottle.

### Is it safe to freeze a PET bottle, or keep it in a hot car?

Yes, of course. The idea that PET bottles 'leach' chemicals when frozen or heated in hot cars is not based on any science, and is unsubstantiated by any credible evidence.

### Can I reuse a PET bottle?

Yes, like other food or beverage containers, PET bottles can be reused if you take steps to prevent the growth of bacteria. Regularly wash all your containers, not just PET bottles, with hot soapy water and dry thoroughly.

### Are PET bottles recyclable?

Most definitely yes, and simply recycling the PET bottle reduces its carbon footprint by some 25%.

### Does PET contain dioxins?

No, there are no dioxins in PET plastic. Dioxin, a chlorine-containing chemical has no role or presence in the chemistry of PET

### Does PET contain BPA?

No, Bisphenol A (BPA) is not used to make PET, nor is it used to make any of the component materials used to make PET.

### Does PET contain endocrine disruptors?

No, there are no substances known that can migrate from PET that could be responsible for the endocrine disruptors having a hormonal effect.

### Does PET contain DEHA?

No, Diethylhydroxylamine (DEHA) is not present in PET, either as a raw material or as a decomposition product. DEHA is also not classified as a human carcinogen and is not considered to pose any significant health risk to humans. It can be found in water – bottled or tap water – and is then called DOA. DOA is one of the organic contaminants commonly found at trace levels in just about all drinking water. It is also sometimes – incorrectly – interpreted as Diethylhydroxylamine which is not found in PET or in the production of PET bottles.

### Do phthalates occur in PET water bottles?

No, phthalates are not found in PET. The type of "phthalate" which has raised concerns is used to make various plastics more flexible, and in that role is called a "plasticizer." PET does not contain plasticizers or the type of "phthalate" that is used in plasticizers.

### Does PET contain antimony oxide?

Yes, PET does contain antimony oxide, which is used as a catalyst. However, the amounts are well below the established safe limits for food and water set by the World Health Organisation. For example, a 60kg person would be able to tolerate an intake of 360ug but the guideline for drinking water is 15 – 20ug/l.

### Some products made from recycled PET

- in South Africa
- Fabric for clothing and reusable shopping bags
- Ceiling insulation and geyser blankets
- Fibre – pillows and duvets
- Bottle-2-bottle both food and non-food applications
- Automotive carpets for the automotive industry
- Fibre for geo-textiles in lining of the Gautrain tunnels and in the construction of roads and power stations



**plastics don't litter – people do.**