

# The Life Cycle of a Plastic Bottle



## DID YOU KNOW?

**80%**  
of ocean plastic comes from land-based sources...

**75%**  
... of that is uncollected waste

The oceans are a dumping ground for plastic.

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More than 8 million tons of plastic leaks into the oceans



If we do nothing, there will be more plastic than fish in the oceans by 2050.

## Here's How a Plastic Bottle Ends Up in Our Oceans

### PRODUCTION

#### Stage 1

First, crude oil and natural gas are pulled from the earth through large-scale extraction operations.

From here, the crude oil is shipped to a refinery. It often requires multiple rounds of shipping. The refinery then distills the oil into its component parts, like gas and oil fuel.

#### Stage 2

Then the refined oil is shipped to a plastics factory.

At the plastics factory, the oil chemical bonds with gas molecules to create monomers. These monomers undergo chemical processes which then bond them together into polyethylene terephthalate (PET), the polymer most plastic water bottles are made from.

The PET mixture at this point is in the form of many tiny pellets. The manufacturing plant melts them down and injects the mixture into molds. The plastic takes the familiar shape of a bottle.

#### Stage 3

Next, the empty plastic bottles are shipped to the bottling plant.

The bottling plant fills the water bottles with water. The bottles are then packaged.

### DISTRIBUTION

The water bottles are then shipped to the grocery store, where they're stocked and placed on shelves.

You buy the water bottles and drive them from the store to your home, then you drink the water and toss the empty bottle into the trash or recycling.

### DISPOSAL USA

The 10-27% of bottles that are recycled are taken to recycling centers. The recycling center sorts the bottles, melts them back into pellets, and remakes them into other products. Those include things like carpeting and clothing.

The bottles are then picked up by waste management services.

Approximately 73-90% of them go straight to landfills in the US, where they'll take about 500 years to decompose.

### DISPOSAL IN EMERGING COUNTRIES

Emerging countries like China, India and Malaysia do not have the infrastructure necessary to recycle, so many plastics end up in waterways that eventually reach the ocean.

90% of plastics found in the oceans originate from just 10 rivers - All of which are located in Asia.

## Here's where Socktopus comes in...

Our mission is to prevent plastic bottles from ever making it to the ocean. We're diverting plastic bottles before they have a chance to make it to a landfill or a waterway and using them to make socks!



At Socktopus Ink, we stand to do our part in creating a better tomorrow. It's our goal to educate and empower parents and children to make better, more earth-friendly choices.