

# Microplastics Factsheet

## What are microplastics and where do they come from?

Microplastics are tiny pieces of plastic, like the ones you see in the picture on the right.

Plastic breaks into smaller and smaller pieces but never goes away. Microplastics can form when bigger bits of plastic break down into smaller bits. This includes things like bottles, bags, straws and food packaging. Microplastics can even come off of our polyester or polar fleece clothes when we wash them.



In addition, some cosmetic companies make scrubs, shampoos and toothpastes that contain microplastics. These tiny pieces of plastic are added to these products as exfoliants, but when washed down the sink can end up travelling into our oceans.

## What are some of the impacts of this plastic?

Even though they're small, microplastics cause a big problem for our environment. Firstly, if you look at the amount of plastic in the environment, over 85% of that is microplastic.

Microplastics look like food to the jellyfish or fish. The jellyfish eat it and this is how the plastic enters the ocean food chain. Larger pieces of plastic get mistaken for food by seabirds, fish and turtles. Either way, this plastic is now well and truly a part of the marine food chain.

Plastic can be found in the bodies of more than 50% of the world's sea turtles, and it is estimated that 90% of all seabirds will ingest plastic at some point in their lives. Studies on fish show that they too contain plastic and appear to consume large quantities of it when it is available.

It turns out that animals that live on the seafloor, like lobsters, sea cucumbers and hermit crabs, and that live as deep down as 1800 metres, have also eaten plastic. And if you eat seafood, then some of this plastic might be in you too!

This is a problem on two counts; firstly, plastic has no nutritional content and doesn't give animals the energy they need. Secondly, plastics also often contain chemicals that are dangerous for humans or for animals. When animals eat microplastics the chemicals can leach into their bodies and cause illness.

## Where does all this plastic come from?

Scientists have concluded that 60% - 80% of the plastic in our oceans is initially discarded on land. Wind blows plastic rubbish out of littered streets and landfills, and from trucks and trains on their way to landfills. It gets into rivers, streams and storm drains and then gets carried by tides and currents out to sea. Litter dropped by people at the beach is also a major source.

The other 20% of marine plastic comes from boats, offshore oil rigs and large cargo ships that dump or lose debris directly into the water. The majority of this debris is fishing nets.

Oceanographers and ecologists recently discovered that up to 70% of marine debris found in the ocean will actually sink to the seafloor, and because humans haven't gotten around to exploring our ocean floors in detail, we don't actually know how much is down there.

**“Water and air, the two essential fluids on which all life depends, have become global garbage cans” – Jacques Yves Cousteau**