



Picture: Oregon State University, CC BY-SA 2.0 - [tps://www.flickr.com/photos/oregonstateuniversity/2128278666/](https://www.flickr.com/photos/oregonstateuniversity/2128278666/)



MP-1-1 07/2024



# Microplastics: *The Basics* You Need to Know

## What Are Microplastics?

Microplastics are plastic particles that are greater than 1 nanometer (nm) and less than 5 millimeters (smaller than a strand of DNA and up to the diameter of a straw). This definition includes nanoplastics, which range from 1 nm to 1,000 nm.

## What Are Sources of Microplastics?

Microplastics may be intentionally added to consumer products (like body wash/cosmetics, toothpaste, etc.), released during product use and care (synthetic clothes, tires, paint, etc.), released during plastic manufacturing, and may result from the breakdown of larger plastics into smaller pieces.

## How Do Microplastics Get into the Environment?

Microplastics can enter the environment when:

- Consumer products, such as tires, cigarette butts, paint, or any synthetic clothing, break down.
- Larger plastic materials are improperly disposed and break down into smaller pieces.
- Microplastic-containing sewage sludge (biosolids) from wastewater treatment plants is applied to agricultural fields as fertilizer.
- Improperly stored plastic materials from industrial processes get into the air and

wastewater discharges or are spilled into surface water bodies.

- Rain and stormwater collect microplastics from the ground and carry them into water bodies.
- Plastic pollution in the ocean breaks down.

## Why Should You Care?

Microplastics can be ingested and inhaled. They can carry pollutants and harmful chemicals that can lead to potential adverse effects in animals, plants, and humans. Microplastics have been detected in several human tissues, including lungs, placenta, blood, and breast milk, although the health effects remain uncertain.

## What Can You Do?

- Purchase nonplastic alternatives.
- Replace single-use products—water bottles, bags, straws, etc., with reusable versions.
- Buy sustainable, synthetic-free clothing such as cotton, linen, etc.
- Check for ingredients such as polyethylene and polypropylene in personal care products.
- Recycle or dispose of plastics correctly.
- Spread the word and support initiatives about the importance of reducing plastics.

The **Interstate Technology and Regulatory Council (ITRC)** is a state-led environmental coalition devoted to creating innovative solutions, best management practices, documents, and trainings to foster technical knowledge and quality regulatory decision-making to protect human health and the environment. Visit [Home - ITRC \(itrcweb.org\)](https://www.itrcweb.org).

