

WATER QUALITY FACTSHEET

MICROPLASTICS

Factsheet Drinking Water Series - #3

CALIFORNIA INFO



What Are Microplastics?

Microplastics are tiny plastic particles less than 5 millimeters in size. **Primary microplastics** are manufactured small plastics included directly in products, such as microbeads in cosmetics. **Secondary microplastics** result from the breakdown of larger plastic items due to UV radiation, weathering, and abrasion.

Where Are They Found?

- **Oceans and waterways:** surface water, deep sea sediments, beaches
- **Soil and air:** urban and agricultural soil after deposition or being transferred by wind
- **Food and water:** seafood, honey, salt, bottled and tap water
- **Human body:** have been detected in blood, lungs, feces, and placental tissue

Why Are They a Concern?

- **Environmental Impacts:** Microplastics harm marine life through ingestion and disrupt aquatic ecosystems and food chains.
- **Potential Human Health Risks:** Microplastics may carry toxic chemicals and cause inflammation or biological disruption when inhaled or ingested.
- **Persistence:** Plastics degrade very slowly, continuously breaking into micro- and nanoplastics.

KEY POINTS

Key Statistics

- 11 million metric tons of plastic waste enter the ocean annually (2020 data)
- A single laundry cycle can release hundreds of thousands of microfibers
- Over 50 trillion microplastic particles are estimated to be in the ocean

Major Sources

- Synthetic textiles (e.g., polyester fabrics)
- Car tires through abrasion and wear
- Cosmetics and personal care products
- Industrial processes
- Packaging and single-use plastics

What Can Be Done?

- Reduce plastic use by opting for reusable items
- Improve waste management and recycling infrastructure
- Support bans on microbeads and single-use plastics
- Innovate textiles to minimize microfiber shedding
- Fund and support research to better understand impacts of microplastics

