

# UNDERSTANDING MICROPLASTIC LITTER



Microplastic litter is made up of both **primary** and **secondary** microplastic from both land- and sea-based sources.

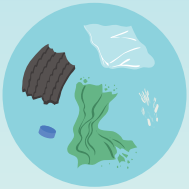
## MICROPLASTIC

Any type of tiny (5 millimeters or less), solid plastic particle or fiber found as litter in oceans and other waterways.



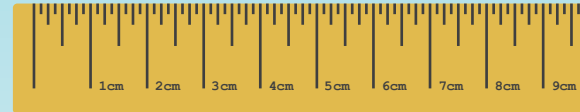
### PRIMARY MICROPLASTIC

Small plastic particles that are intentionally tiny and found in marine litter. They are used by many industries for a variety of purposes.



### SECONDARY MICROPLASTIC

Larger pieces of plastic debris -- such as packaging, cigarette filters, car tires or synthetic fabrics -- that break down into tiny pieces over time.

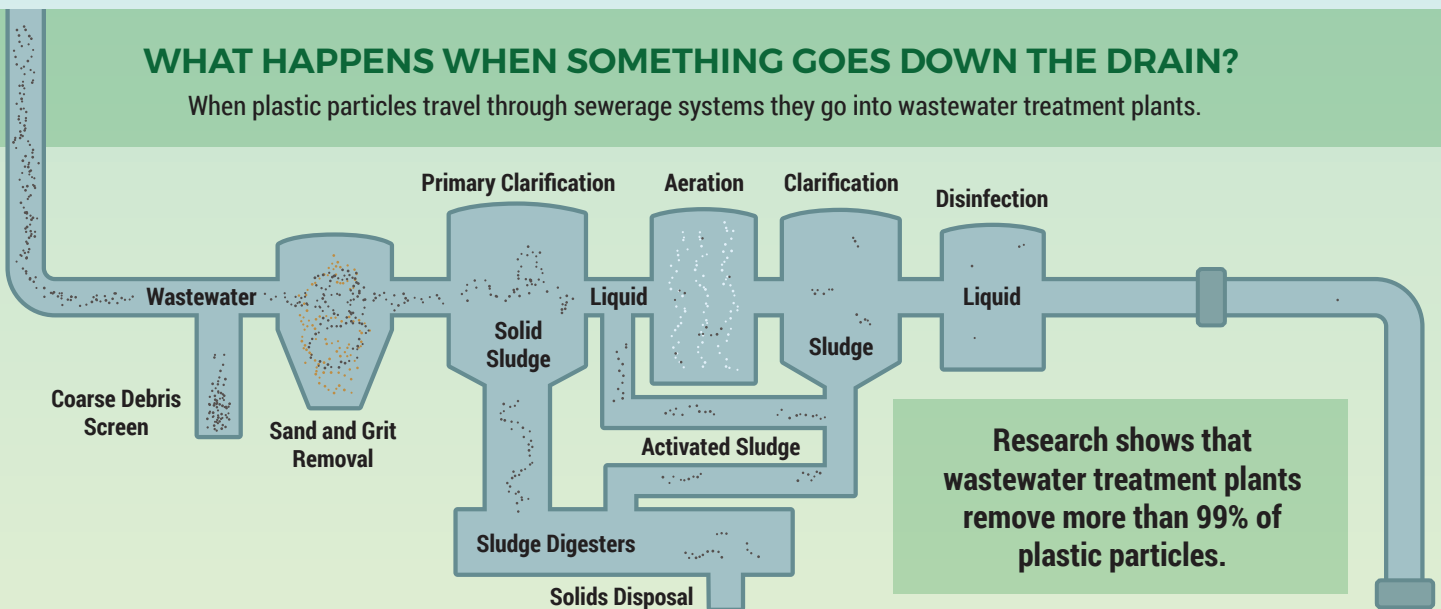


### MICROBEADS

Solid, plastic particles that do not dissolve in water and are used for diverse purposes, from industrial boat cleaning to rinse-off personal care products.

## WHAT HAPPENS WHEN SOMETHING GOES DOWN THE DRAIN?

When plastic particles travel through sewerage systems they go into wastewater treatment plants.



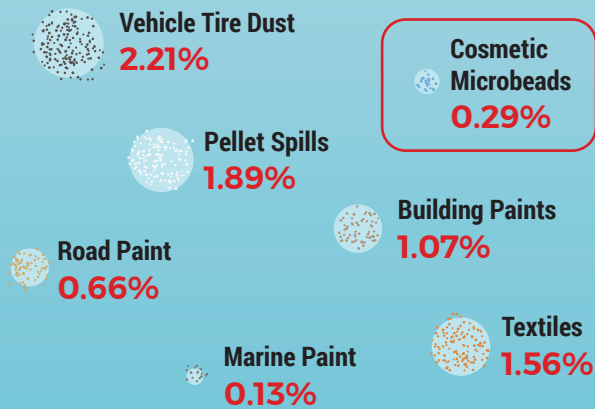
Research shows that wastewater treatment plants remove more than 99% of plastic particles.

Studies have shown the main sources of microplastic litter in the marine environment are from the breakdown of plastic packaging, such as bags and bottles; tire dust washed from roadways; plastic pellets used in manufacturing; and synthetic fibers from garments and textiles. **Microbeads from cosmetics and personal care products are just a tiny portion (less than one-third of one percent).**

## TYPES OF MICROPLASTICS FOUND IN THE OCEAN

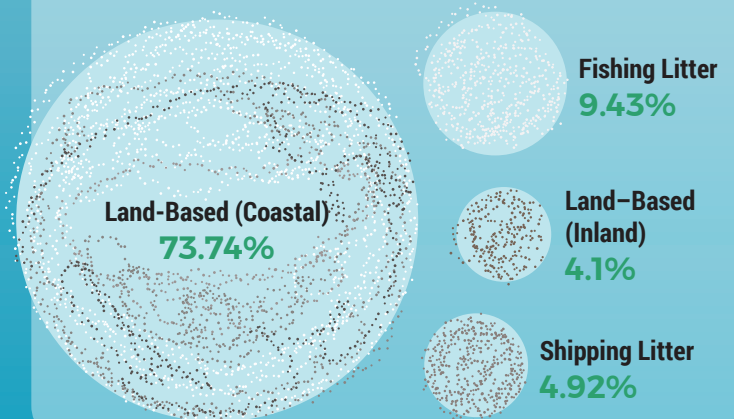
### PRIMARY MICROPLASTIC

950,000 Tonnes Per Year



### SECONDARY MICROPLASTIC

11,250,000 Tonnes Per Year



Although microbeads from cosmetics and personal care products make up a very tiny fraction of microplastic litter in waterways, the industry began voluntarily phasing them out and supported legislation to ban microbeads in the U.S.

The industry continues to work with environmental NGOs, academia, policymakers and others, to better understand and find ways to reduce plastic debris in oceans and waterways.



#### Scientific References

Carr, S.A., Liu, J., Tesoro, A.G. 2016. Transport and Fate of Microplastic Particles in Wastewater Treatment Plants. *Water Research* 91: 174-182

Murphy, F., Ewins, C., Carbonnier, F., Quinn, B. 2016. Wastewater Treatment Works (WwTW) as a Source of Microplastics in the Aquatic Environment. *Environmental Science and Technology* 50 (11): 5800-5808

<http://www.eunomia.co.uk/reports-tools/plastics-in-the-marine-environment/>