



PLASTIC MICROBEADS POLLUTING OUR WATERS



Photo courtesy of The Alliance for the Great Lakes

Plastic microbeads are tiny particles of plastic that are sometimes put in products like face and body scrubs, hand soaps, or toothpastes.

They can range in size from less than 10 micrometers (about the diameter of a red blood cell) up to a few millimeters (a millimeter is about the width of a credit card).

The problem with plastic microbeads

Plastic microbeads aren't easily captured by water treatment systems, so after being rinsed down drains, they can get in our waters where they can damage the aquatic ecosystem.

And because the plastic particles are not biodegradable, they remain in the environment for long periods of time.

Plastic microbeads in the Great Lakes

Recent research has shown that the Great Lakes are teeming with plastic, with higher concentrations nearer to coastal cities.

An average of 17,000 tiny pieces of plastic per square kilometer has been found in Lake Michigan.

What are manufacturers doing?

Fortunately, many leading manufacturers have already stopped or are removing plastic microbeads from their products. This includes the five largest cosmetic and personal care product companies: Procter & Gamble, Unilever, Colgate Palmolive, L'Oréal USA Inc., and Revlon, Inc.

These leaders have less than one-third of that total marketshare however, leaving many potential microbead-containing products on shelves.

**A single bottle of
microbead face
scrub can contain
over 300,000
plastic particles**

**AVOID PRODUCTS
CONTAINING:
POLYETHYLENE,
POLYPROPYLENE, OR
ACRYLATE (CO)POLYMER**

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Photo courtesy of 5 Gyres

Wisconsinites may be adding nearly 400 billion microbeads to the waste stream a year

What are the impacts of plastic microbeads?

Plastic microbeads in the water can be easily confused for food by aquatic organisms. As a result, researchers have found them in everything from tiny invertebrates to large fish. And since they cannot be digested, they can cause problems like decreased feeding and disrupted digestive systems.

Plastic microbeads can also contain various chemicals. Some of those chemicals are purposeful additives like BPA put in the microbeads themselves. Other times, the microbeads act like sponges, soaking up chemicals they come into contact with. Plastic debris in the oceans, for example, has been found to accumulate pollutants such as PCBs up to 100,000 to 1 million times the levels in the water.

When chemicals are absorbed by the organisms that eat plastic microbeads, they have the potential to kickstart the process of biomagnification, where chemical concentrations increase to much higher levels up the food chain, like in larger fish.

Does my product contain plastic microbeads, and are there alternatives?

You can check your personal care or beauty products for plastic microbeads by checking the ingredients list for *polyethylene*, *polypropylene*, or *acrylate (co)polymer*.

While a large number of products, especially those marketed as “scrubs” do contain these plastic microbeads, there are also many that don’t. They use natural ingredients like fruit pits, oatmeal, or pumice instead.

Why are we just hearing about plastic microbeads?

Until recently, research on plastic pollution in our waters has been focused in the oceans. But new research has shown that microplastics like plastic microbeads are also found throughout inland waters.

In the oceans, the vast majority of microplastic pollution is made up fragments broken down from larger pieces of plastic like plastic bags or bottles. In the Great Lakes, however, over half of all microplastic particles found by researchers were in the shape of microbeads.

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What can be done to fix the problem?

Unfortunately, there are no known methods to effectively remove plastic microbeads from the environment. As a result, we need to keep them from getting out into our waters in the first place.

Recently proposed bills in Wisconsin follow the lead of other states to do just that, by banning the manufacturing of microbead-containing products, and phasing them off store shelves.