

Microplastic



What is microplastic?

Definition:

A tiny plastic piece, fragment, or fiber, especially one that measures less than 5 millimeters in length or diameter.

Where can you find microplastic?



Health and beauty products:

Microplastic in form of microbeads is used in toothpaste, shower gel, body lotion, sun cream, some soaps, some lip gloss brands, powder, lipstick and many other cosmetic products. It is also used in some medicines.

How do we know if a product contains microplastic?

It is not so easy to know if there is microplastic in the product, because there are many different kinds of microplastic.

Here is a list. If you find this on the packaging you now there is microplastic in the product.

- Acrylate Copolymer (AC)
- Acrylate Crosspolymer (ACS)
- Dimethiconol
- Methicone
- Polyamide (PA, Nylon)
- Polyacrylate (PA)
- Polymethyl methacrylate (PMMA)
- Polyquaternium (PQ)
- Polyethylene (PE)
- Polyethylene glycol (PEG)*
- Polyethylene terephthalate (PET)
- Polypropylene (PP)
- Polypropylene glycol (PPG)*
- Polystyrene (PS)
- Polyurethane (PUR)
- Siloxane
- Silsesquioxane

Other ways of creation of microplastic:

- larger plastic rubbish (for example plastic bottles, straws, coffee-to-go cups, bags) degrades (breaks up) into smaller and smaller pieces – in the end it is microplastic
- A lot of fertilizer used in agriculture contains microplastic
- Polyester clothes like fleece jackets and yoga pants are made of plastic. When they are washed, microfibres (little plastic pieces) are washed out and they reach the ocean with the water.



Our clothes contribute to the plastic pollution:

Short film about microfibres:

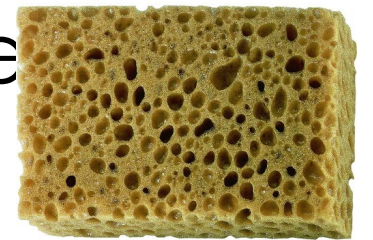
<https://www.youtube.com/watch?v=BqkekY5t7KY>

(or from USB)



What effects on the environment does microplastic have?

- ▶ Microplastic beads are so small that they easily pass through water filtration systems and end up in the ocean and lakes
- ▶
- ▶ Microplastics act like sponges – they attract other pollutants around them
- ▶ Animals in the oceans eat microplastic beads
- ▶ Animals die of plastic with its other pollutants



Do these effects on the environment affect us humans?

- ▶ Yes they do!!
- ▶ When we eat fish we also eat microplastics – in this way we humans get the microplastic back
- ▶ But scientists have also found microplastics in our soil, in tap water, bottled water, beer and even in the air we breathe.
- ▶ Microplastic has even been found in our salt!!
- ▶ This microplastic might harm us humans as well – scientists are not sure what exactly happens when we

What can you do?

The 3 Rs: Reduce, Reuse, Recycle

REDUCE

- ▶ The best option is to **reduce** the use of plastic and **reduce** your “output” of microbeads
- ▶ → don't buy cosmetics with microplastic (there is a helpful app)
- ▶ → don't use plastic things which are not needed (straws, bags, coffe-to-go cups,...)

What can you do?

The 3 Rs: Reduce, Reuse, Recycle

REUSE

- ▶ Try to **reuse** plastic items as often as possible before throwing them away

RECYCLE

- ▶ Make sure your plastic doesn't end up in the normal rubbish but in the recycling chain

What can you do?

Here you can find help:

- ▶ - Greenpeace offers a microplastic checklist of most plastics in cosmetics
- ▶ In Germany the BUND offers a helpful negative list. It names the products by the name that contain microplastics – find a page like this in your country
- ▶ There are smartphone apps (Codecheck, Beat the Microbeat) – you scan products and it tells you which harmful ingredients the product contains (does it contain microplastic?)

What can you do?

Clothes:

- ▶ buy clothes made of natural fabrics
- ▶ wash Polyester clothes as seldom as you can, as cold as you can,
- ▶ don't tumble dry polyester clothes – hang them for drying
- ▶ use special bag for washing polyester clothes (example: bag by gubbyfriend)



Summary:

Short film about microplastics:

<https://www.youtube.com/watch?v=tG4AYagBz9Q>

(or from USB)

