

Plastic and Microplastic

Can a great invention become a major (environmental) problem?

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WHAT IS MICROPLASTIC?

Microplastic are fragments of any type of plastic below 5mm, with two classifications:

Primary Microplastic

Tiny particles produced to be intentionally used in a specific industry such as cosmetic products, cleaning products, 3D printing, as well as microfibers that shed from clothing and other textiles.

Secondary Microplastic

Particles that result from the breakdown of larger plastic items (through natural weathering processes) such as packaging, bottles, disposable diapers, tires, furniture, as well as plastic toys and other plastic products.

QUICK FACTS

- » Nearly each piece of plastic produced in the 19th century still exists.
- » Humans have created more than 8.3 billion metric tons of plastic to date, outgrowing all man-made materials other than steel and cement.
- » In 2015, the packaging industry produced 146 million metric tons, more than doubling the next highest industry (building & construction; 65 million metric tons).
- » A key concern of microplastic pollution is whether it represents a risk to ecosystem and human health.
- » Researchers found traces of microplastic in 93% of 11 different plastic water bottle brands sampled.
- » Scientists have found microplastics in oceans, the Arctic snow and in the ice of the Antarctic.
- » Recent evidence indicates that humans constantly inhale and ingest microplastics.
- » Most of the pieces of microplastic we ingest come from drinking water and can be found in other foods such as seafood, table salt and different types of fruits and vegetables.
- » Severe implication on human health is still being studied but preliminary findings suggest that chemicals leaked from plastic may lead to several problems once in the human body.

“There are connections to increases in certain kinds of cancer to lower sperm count to increases in conditions like ADHD and autism. We know that they are connected to these synthetic chemicals in the environment and we know that plastics are providing kind of a means to get those chemicals into our bodies.”

–Professor Sherri Mason, Researcher, on results of plastic contamination

We drink, eat and breathe plastic. An average person could be ingesting approximately 5 grams of plastic every week.

Source: World Wildlife Fund

It took you approximately
1 WEEK
to eat this credit card



IMPLICATIONS FOR INSURERS

Just like climate change-related risks, plastic pollution risks can affect (re)insurance (and investment portfolios) in the form of **physical, transitional, liability and reputational risks**.

Physical damage caused by plastic pollution, includes risks to human and animal health, to places and to vessels and equipment (implication on Marine, Engineering, Property, Life Insurance).

Public awareness is growing and regulation on plastic pollution and **liability risk** is increasing. Businesses may face liability risks related to plastic pollution if individuals suffer damage due to plastic pollution and seek compensation from those whom they consider responsible (implication on Third Party Liability, Employers Liability, Product Liability, Pollution Liability, D&O, E&O Insurance).

Transitional Risk: Many countries have banned single-use packaging and have increased regulation on waste management. Leading industries will need to reconsider their business models, or they might face problems in the future (implication on Credit & Surety).

Reputational Risk: Transaction with businesses who are targeted as high plastic polluters or who are investors in high plastic polluters industries.

Source: [Unwrapping the risks of plastic pollution to the insurance industry by United Nations Environment Programme](#)

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