

Update microplastics from textile sources

At the end of 2018, Modint conducted a literature research and drew up a position paper to take a realistic look at the reports on microplastic contamination and the possible contribution from washing synthetic textiles. This [position paper](#) has been shared with our members and on request with external stakeholders.

Since then, we have kept a close eye on reporting on this subject and we actively participate in various working groups, in particular the multi-stakeholder consultation with the Ministry of Infrastructure and Water Management. At present, our findings from the position paper are still relevant, but can be updated with recent developments. Read our main findings and views below:

1. More clarity is needed about the share of microplastic fibers in the total microplastic pollution

Tests to determine microfibre loss from washing synthetic clothing vary widely. Researchers use different textile products, parameters, equipment and do not always interpret and report the results in the same way. This makes that results vary widely. For example, the Ospar report shows a share of microplastic pollution by the textile industry of 1% and the IUCN 35%.

It is important that an unambiguous test method is developed to avoid these divergent results. Several serious developments are currently underway in this regard. Modint follows these developments closely and participates in various working groups and consortiums.

We are convinced that an unambiguous measurement method can provide the solution to determine the actual proportion of microplastic fibers in the total microplastic pollution and to subsequently take effective and proportional measures.

2. The effect of microplastic pollution on people and the environment is still unclear.

Accumulation of high concentrations of microplastics within organisms have rarely been reported. This is because microplastics are generally excreted with the stool. Nevertheless, the absorption of microplastics by, for example, crustaceans and shellfish does seem to lead to absorption in the tissue. However, there is still too little data available to clarify this.

At this moment, several scientific studies are being conducted on the effect of microplastics on human health. Currently, lab-scale testing has shown that packaged microplastic fibres (PET and PA) can enter human lungs and embryos. Whether this also happens in practice and what the actual exposure and risk is still needs to be investigated further.

3. Insight into mechanisms and determining factors for microfibre loss from textile

The proportion of microplastic pollution from the clothing industry initially seemed high because various studies are based on fleece products (jackets / blankets), and this was subsequently calculated on to the full synthetic textile production. Fleece, however, appears to release much more microfibrils during the washing process than, for example, sports leggings made from synthetic filament yarn. The yarn and fabric construction seems to determine the microfibre loss to a large extent, more insight is needed on this.

When a standardized test method (as described under point 1) has been developed, by testing products with different fiber composition, construction, coatings, etc. can be demonstrated where the risks lie and how these can be reduced.

4. Washing at lower temperatures has been found to result in less microfibre loss.

This is an easy to apply measure, which also saves energy. Brands can better inform consumers about smart and sustainable maintenance of their textile products. This is already possible, for example, by using the Clevercare logo (Modint members have the right to use this symbol).

Based on the above points, targeted, but above all proportional measures can be developed with stakeholders.

Policy focus:

Microplastics have been a topic of discussion for some time. Currently, "unconsciously added microplastics", such as those from synthetic clothing, are increasingly appearing on various political agendas. For example, a House of Representatives motion has recently been passed to investigate which measures are possible to reduce fibre loss during wearing and washing. The subject also receives attention in EU context.

Modint follows this and is in discussion with relevant parties where necessary. We will of course inform our members in good time when important developments occur.

Communication

Milieu Centraal has drawn up an unambiguous communication message aimed at consumers for the network '*iedereen draagt bij*' (of which Modint is a part). With this, the consumer can be properly informed about microplastic fiber loss and no-regret measures that they can already take themselves. You can find it [here](#) (in Dutch)

If you have any questions or comments about this subject, please contact Nikki Bosboom - bosboom@modint.nl. experiences from the industry are also more than welcome.