
Stijn Steuperaert | Edwin Maes | Eddy Albrecht |Veerle Herrygers

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NOTE: This Regulation shall be binding in its entirety and directly applicable in all Member States.

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**COMMISSION REGULATION (EU) 2023/2055**

**of 25 September 2023**

**amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards synthetic polymer microparticles**

*Keywords: Synthetic polymer microparticles – particle size – intentionally added microparticles – non--intentional release of microparticles*

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOL_2023_238_R_0003&qid=1695804976302

# Background

The European Commission is committed to fighting microplastics pollution, as stated in the European Green Deal, the EU Plastics Strategy and the new Circular Economy Action Plan. In the Zero Pollution Action Plan, the Commission set the target to reduce microplastics pollution by 30% by 2030.

Microplastics are persistent, very mobile, and hard to remove from nature. They are found all over the world, even in the most remote locations, and in the human body. The risks related to high levels of human exposure are a cause of grave concern. Plastic pellets are found in water and soil, including agricultural lands, and harm ecosystems and biodiversity. Pellets are known to be eaten by a range of marine and coastal species, such as sea turtles, seabirds and shellfish, and once ingested, they can cause physical harm or death.

The approach to achieving the target to reduce microplastics pollution by 30% by 2030 is threefold:

- reduce pollution caused by plastic products (as these degrade into microplastics once in the environment);
- restrict the use of intentionally added microplastics in products; and
- reduce unintentional microplastic releases.

Together with the restrictions on intentionally added microplastics adopted on 25 September 2023, the rules adopted today are the first EU instruments specifically designed to tackle microplastic pollution at source and contribute to the target of reducing microplastics releases into the environment by 30% by 2030 established by the Zero Pollution Action Plan.

The Commission is also presenting a brochure on state of play of the microplastic pollution in the EU, summarising developments in EU policy, research, innovation, and investment.

As part of these efforts, the Commission is working to reduce microplastics pollution from different sources: plastic waste and litter, accidental and unintentional releases (e.g. plastic pellet loss, tyres degradation or release from clothing), as well as intentional uses in products.

To tackle microplastics pollution while preventing the risk of fragmentation in the single market, the Commission requested the European Chemicals Agency (ECHA) to assess the risk posed by microplastics intentionally added to products and whether further regulatory action at EU level was needed. ECHA concluded that microplastics intentionally added to certain products are released into the environment in an uncontrolled manner and recommended to restrict them.

## PRESS RELEASE 25 September 2023 Brussels

### Protecting environment and health: Commission adopts measures to restrict intentionally added microplastics.

Today, the Commission takes another **major step to protect the environment** by adopting measures that **restrict microplastics intentionally added to products** under the EU chemical legislation REACH.

The new rules will **prevent** the release to the environment of about **half a million tonnes of microplastics.** They will prohibit the sale of microplastics as such, and of products to which microplastics have been added on purpose and that release those microplastics when used. When duly justified, derogations and transition periods for the affected parties to adjust to the new rules apply.

The adopted restriction uses a broad definition of microplastics – it **covers all synthetic polymer particles below five millimetres that are organic, insoluble and resist degradation**. The purpose is to

reduce emissions of intentional microplastics from as many products as possible. Some examples of common products in the scope of the restriction are:

- The granular infill material used on artificial sport surfaces – the largest source of intentional microplastics in the environment;
- Cosmetics, where microplastics is used for multiple purposes, such as exfoliation (microbeads) or obtaining a specific texture, fragrance or colour;
- Detergents, fabric softeners, glitter, fertilisers, plant protection products, toys, medicines and medical devices, just to name a few.

Products used at industrial sites or not releasing microplastics during use are derogated from the sale ban, but their manufacturers will have to provide instructions on how to use and dispose of the product to prevent microplastics emissions.

# Impacts on the industry

## Textiles

*Global consumption of clothing and footwear is projected to increase by 63% between 2019 and 2030, and textiles made from synthetic fibres are expected to account for the greatest share of this increase. In addition to their contribution to growing plastic waste generation, such textiles shed microplastic fibres into water or air throughout their entire lifecycle. The EU Strategy for Sustainable and Circular Textiles40 charted the way to tackle these challenges.*

*The Commission proposal on Ecodesign for sustainable products provides for setting sustainability requirements for textiles taking account of a broad range of parameters, including microplastic release, and subject to dedicated impact assessments. Developing a measurement standard is relevant in this context. This framework will also enable the future assessment of the use of filters, or other solutions retaining synthetic (micro-sized) fibres from the water effluent and air outlet of washing machines and tumble dryers. Furthermore, promoting best practices on care and proper disposal of the residue from washing machine and tumble dryer filters can contribute to preventing the releases of microplastics into wastewater.*

*Awareness raising amongst textiles users and clear information are also important. Under the revision of the Textile Labelling Regulation, relevant elements include the consideration of providing consumers with information on care and washing guidelines linked to microplastic emissions, as well as end-of-life disposal instructions for textile products, aiming to reduce microplastic releases.*

*The textiles industry has a role in coordinating efforts to develop solutions, such as the Cross-Industry Agreement for the prevention of microplastic release into the aquatic environment during the washing of*

*Including microplastics releases in life-cycle assessment methods could contribute to better understanding and tackling their impacts from a life-cycle perspective. Such efforts are currently made in the development of the Product Environment*

*Footprint Category Rules (PEFCRs) for apparel and footwear by industry and the European Commission.*

*The first measures issuing from the Microplastics Regulation (EU) 2023/2055, for example the ban on loose glitter and microbeads, start applying on 17 October 2023, when the restriction enters into force. In other cases, the sales ban will apply after a longer period to give affected stakeholders the time to develop and switch to alternatives.*

**The EU Microplastics Regulation under REACH will impact the use of glitter, sequins, buttons, and other trims commonly found in CLOTHING and FOOTWEAR.**

While the regulation seems to have limited applicability to apparel and footwear, as it prohibits the sale of synthetic polymer microparticles either on their own or in mixtures with a concentration of 0.01% or higher by weight, there are exceptions for certain items.

- Glitter, sequins, buttons, and some other trims could fall under the regulation if they are not permanently attached to the articles.
- Additionally, beads and reflective striping may also be affected, although reflective striping typically consists of glass particles, which should be exempt. The general rule is that if the microplastic particle can easily come loose when the article is rubbed, it is likely to be subject to the regulation.
- Conversely, if the particle remains affixed after rubbing, it is likely to be exempt. Bio-based glitter is expected to be exempt.

## Microplastics in paints and coatings

*Paints (including coatings) contain on average 37% plastic polymers, which ensure their durability and flexibility.29 However, release during application, wear and tear, or removal of paints are estimated to represent the largest source of unintentional microplastics pollution.30 Of the 2.3 million tonnes of plastic polymers used in different types of paint across the EU in 2019, approximately 21% leaked into the environment in the form of microplastics.*

*While the REACH restriction on intentionally added microplastics31 introduces reporting requirements for certain paint products, the Commission proposals on Ecodesign for sustainable products and on construction products32 provide for setting sustainability requirements for paints taking account of a broad range of parameters, including microplastic release, and subject to dedicated impact assessments.*

*Relevant industries have a role in developing EU-wide guidelines to minimise microplastic releases such as on the application and removal of paints and the possible promotion of mineral paints in the construction sector.*

Irrespective of the physical form, microplastics in paints and coatings are used for:

- Weight reduction of the paint contents (ergonomic reasons)
- Abrasion resistance

- Scratch, mar and wear resistance
- Impact resistance
- Flexibility and anti-cracking
- Anti-slip effects
- Soil resistance/ easy-to-clean surfaces
- Friction reduction
- Matting/delustering effects, side sheen control
- Surface texture
- Tactile effects such as “soft feel” or “coarse feel”
- TiO2 dispersion/improved hiding, TiO2-substitute
- Glitter effects
- Insulating properties (heat, sound dampening)
- Anti-blocking
- Corrosion resistance
- Lubrication
- Improved applicability
- Increased thixotropy of the wet paint

# Measuring Microplastics

To measure the concentration of microplastics according to the new legislation, a few problems need to be resolved, including

## Size of microplastic particles

To verify the compliance with the concentration limit, only the particles of at least the following size shall be considered:

- 0,1 µm for any dimension, for particles where all dimensions are equal to or smaller than 5 mm;
- 0,3 µm in length, for particles that have a length that is equal to or smaller than 15 mm and a length to diameter ratio greater than 3.

## Defining which type of glitter falls within the scope:

| | Type of glitter | Reason |
|---|---|---|
| In scope | **Synthetic polymer microparticles** used as glitter, regardless of application (it can be on fabrics, trims, belts, shoes, accessories, etc.) | |
| | Loose glitter | If it comes off by rubbing * |
| | Cosmetics with glitter | Those are mixtures and thus in scope |
| | Silver/bronze colours made with metallic pigments | They are polymers with an aluminium surface |
| | Film cut during process | Microparticles could have been "released" during cutting |
| Out of scope | • Natural polymer which was polymerised in nature and have not been chemically modified.<br>• Water soluble polymers / that can biodegrade ** | |
| | Polymer film firmly bonded | Glitter well-bonded to the polymer print |
| | "glimmer" | Mineral material |
| | **Articles with glitter affixed on their surface*** ** | Glitter well-bonded to surface |
| | Reflective prints if made of glass | Glass |
| | Pearls | Too big to be considered microplastic |
| | Foil print (PET foil + Aluminium) | Film, no microparticles were intentionally added |

* no existing test method.

** B1.2 of the Annex XV restriction, from p24-38; esp. Tables 3 and 4

*** The Commission has now clarified that **articles with glitter affixed on their surface** are now regarded as **out of scope of the microplastics restriction** - including some decorative glittered products which were initially considered in scope. The dedicated website on the restriction has now been updated to reflect this change. The Commission added that the change was prompted by the Commission further advancing in the consultation process with other public authorities.

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*For all your questions, please contact Eddy Albrecht or Veerle Herrygers of the Centexbel chemical lab and our consultants Stijn Steuperaert (REACH expert) and Edwin Maes (Circular Clothing expert)*

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