



Brussels, June 2024

## Microplastics

The European Union (EU) has recently adopted a Restriction regulating synthetic polymer microparticles (SPM's) intentionally added to products, under the EU chemical legislation REACH<sup>1</sup>. The intention of this restriction is to prevent the release to the environment of SPM's. This restriction prohibits the sales of SPM's as such, and of products to which SPM's have been intentionally added. When justified, derogations apply for the SPM's users affected by these new rules. Although derogations to SPM's users exists, reporting obligations both to clients and to authorities are required. The European Commission is also working on measures to reduce secondary microplastics (those generated via wear and tear), for which paints and coatings might also be in scope.

CEPE members support efforts to avoid environmental pollution. We believe the presence of microplastics in the environment is an issue that needs to be tackled and we welcome sound scientific research to identify the sources of microplastic pollution and how to minimize them. However, we are concerned about the scientific validity of some current reports, so CEPE is taking responsibility for the sector and has commissioned new research. A sound scientific basis is essential for policy and industry measures.

### The need for paints and coatings

The coatings industry is a hugely important contributor to the sustainability goals of the European Green Deal. Coatings protect an enormous variety of products and surfaces, increasing service life, reducing maintenance and waste and contributing to a circular economy.

There are countless other benefits – reflective coatings on buildings can reduce energy consumption for cooling, and on roads can increase safety. High-performing antifouling

paints are essential to reduce the fuel consumption of ships, decrease greenhouse gas (GHG) emissions, prevent translocation of invasive species and minimize underwater hull cleaning.

### The contribution of paints to microplastic pollution requires further research.

Regarding primary microplastics, only a part of the paint formulation that is intentionally added may fall under the definition of primary microplastic<sup>2</sup>, such as polymeric binders e.g. latex.

<sup>1</sup> 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 (OJ L 238, 27.9.2023, p. 67).

<sup>2</sup> Synthetic polymer microparticles: polymers that are solid and which fulfil both of the following conditions: (a) are contained in particles and constitute at least 1 % by weight of those particles; or build a continuous surface coating on particles; (b) at least 1 % by weight of the particles referred to in point (a) fulfil either of the following conditions: (i) all dimensions of the particles are equal to or less than 5 mm; (ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.



Coatings formulations are mixtures of several different ingredients (typically water, solvents, pigments, additives, and binders). Water is the main ingredient for most consumer paints. The polymeric binders help in holding the ingredients together. Once applied, the polymeric binders such as latex join or coalesce, to form a continuous film; and the polymeric binders are no longer considered a microplastic.

Secondary microplastics can potentially form if a paint layer degrades due to being exposed to the weather. However, there is currently no firm evidence that this effect is a major contributor to microplastic waste.

Furthermore, the paint industry has taken measures to reduce solid emissions. These range from process optimizations such as overspray reduction and paint removal practices to developing paints that last much longer and guidance on brush and roller cleaning to reduce emissions by DIY users. Also, professional painters are taking measures to reduce the release of paint particles and dust during their work, such as capturing sanding residues.

## State of the science

The American Coatings Association (ACA) published a literature review<sup>3</sup> in 2022 aimed at establishing the state of the science and available data on microplastics generated by

paints and coatings. The conclusion is that there is no clear data quantifying the contribution of paint to microplastics pollution in the marine or terrestrial environment.

Many of the reports employ a range of assumptions regarding paint degradation rates and removal practices to estimate the contribution of paint.

CEPE is concerned that some reports significantly overestimate the contribution of paints.

## What are we proposing?

- > To adopt a universally accepted definition of microplastics<sup>4</sup>
- > More research based on sound science to fully understand the source of secondary microplastics in the environment.
- > Supporting the education of professional paint users in paint recovery and waste management to minimize the amount of waste entering the environment.
- > Further information for consumers on the proper handling of paints (purchase, use, disposal) such as a European wide consumer awareness campaign.

<sup>3</sup> Gradient. "Literature Review of Coatings-Related Microplastics" 2022. American Coatings Association

<sup>4</sup> [Frontiers | Understanding the potential release of microplastics from coatings used on commercial ships \(frontiersin.org\)](https://www.frontiersin.org/articles/10.3389/fenv.2022.900001/full)

# Position Paper



CEPE has initiated a research program to provide data

Given the lack of clear scientific data and inconsistencies in reports, CEPE had commissioned independent studies aimed at better understanding degradation of paint

films and subsequent release of secondary microplastics, particularly from building façade coatings and marine coatings. These studies will enhance the industry's knowledge of coatings-related microplastics and provide a better basis for regulatory discussion.