

Customer Information Note on Microplastics in Printing Inks and Printed Products

In September 2023, the European Commission published measures to restrict intentionally added microplasticsⁱ prohibiting the sale of certain synthetic polymer microparticles (SPM) including products to which they have been added on purpose. The adopted entry 78 of Annex XVII of REACH uses a broad definition:

it covers all SMPs below five millimetres that are organic, insoluble and not biodegradable. Substances and mixtures containing at least 0.01% of synthetic polymer microparticles are in scope of the restriction.

Printing inks and varnishes are exempted from the sales ban (according to paragraph 4(a) of the Regulation) as they are exclusively used at industrial sites.

In general, printing inks and varnishes are manufactured in industrial installations, which implement systems and procedures, as required by law, aimed at preventing the release of contaminants into the environment.

In the manufacture of certain printing inks and printing varnishes (especially water-based products), polymer dispersions and certain other raw materials (such as additives) are used, which may possibly fall under the definition of microplastics used in Regulation 2023/2055. These polymers either serve as film-forming components of the binder, or as waxes (e.g. polyethylene waxes) imparting mechanical resistance to the dried ink or varnish film, or as other additives performing other important functions.

EuPIA member companies are aware that there are clear obligations within the legislation for different actors along the supply chain to provide information (such as use instructions, concentration, etc.) and to report on possible emissions in the coming years.

- The information requirements come into effect from 17th October 2025 and include the instruction for use and disposal, the concentration of SPM and generic identity details. If applicable, the identity of the polymer(s) contained and instructions for use and disposal will have to be communicated.
- Any resulting downstream obligation on reporting will only become necessary in 2027.

When printing inks, printing varnishes or printed products are used as intended and properly processed, no synthetic polymer microparticles are intentionally released from the final film, which is formed by the drying of the inks or varnish. The final layer of ink or varnish does not fall under the microplastics definition. This fact holds true also for any glitter effect materials of synthetic origin which may be used in very rare and specific cases in printing ink applications to achieve a desired special effect.

Printing inks, printing varnishes (like all industrial mixtures), as well as printed products are not intended to enter wastewater systems. At the end of the life cycle of printed articles, they have to be recycled or disposed of properly, within the legal framework established in the European Union and/or in the Member States. Proper disposal processes for residual ink waste are in use to prevent the release of microplastics from printing inks or varnishes into the environment.

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ⁱ 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