

VdMi Interpretation aid Restriction of synthetic polymer microparticles

Regulation (EU) 2023/2055¹ of 25 September 2023 amends Annex XVII of Regulation (EC) No 1907/2006, i.e. the Registration, Evaluation, Authorisation and **Restriction** of Chemicals (**REACH**) with regard to **synthetic polymer microparticles** (formerly intentionally added microplastics). The regulation has been in force since 17 October 2023 and the transitional periods have begun.

This interpretation aid is intended to provide an overview of the application of the regulation. It should be seen as a supplement to the individual examination of the relevant legal text. Many questions about the regulation are still unanswered; further assistance is to be provided by a Q&A from the EU Commission and guidance from ECHA, which is not yet available.

Definition of polymer microparticles

The restriction focuses on particles of synthetic polymers or chemically modified natural polymers that are insoluble in water.

The restriction covers particles that consist of at least 1 per cent by weight of synthetic, water-insoluble polymers and have a size of 5 mm or less ("synthetic polymer microparticles" = SPM). Microparticles containing a surface coating of continuous polymers and mixtures containing at least 1 per cent by weight of polymer particles with a size of 5 mm or less are also covered by the definition.

Definitions

Synthetic polymer microparticles:

- Solid polymer or polymer-containing particle with $\geq 1\%$ polymer and $\leq 5\text{ mm}$
- Mixtures with $\geq 1\%$ polymer particles $\leq 5\text{ mm}$

Particle:

- Minute piece of matter, other than single molecules, with defined physical boundaries

Solid:

- Substance or mixture other than a liquid or gas (according to CLP D 4359-90 or ADR)

This definition also includes products from our member companies, such as masterbatches and pigments with a solid polymer coating.

A lower size limit of $0.1\ \mu\text{m}$ ($100\ \text{nm}$) applies if the concentration of synthetic polymer microparticles below this size cannot be determined using the available analytical methods or accompanying documentation.

¹ <https://data.europa.eu/eli/reg/2023/2055/oj>

Natural, biodegradable and soluble polymers, as well as polymers without a carbon atom, are excluded from the designation "synthetic polymer microparticles", i.e. no measures are introduced for these polymers.

In our opinion, inorganic solid particles with a liquid, and therefore non-continuous, polymer coating are also exempt. In its statement², the European Polymer Dispersion and Latex Association (EPDLA) takes the view that polymer dispersions and redispersal polymer powders are also exempt if they have a minimum film-forming temperature (MFFT) below room temperature (<20°C) and can therefore be defined as liquid.

Restriction

Synthetic polymer microparticles shall not be placed on the market as such or in mixtures in a concentration equal to or greater than 0.01 per cent by weight.

This affects, for example, synthetic polymer microparticles for exfoliation (so-called microbeads) in cosmetic products or infill material for synthetic turf sports surfaces. Many uses with VdMi relevant products are exempt from the restriction. Certain information and reporting requirements must be fulfilled.

Exceptions with information and reporting obligations

There are exemptions from the restriction for

- Synthetic polymer microparticles as such or in mixtures for use at industrial sites
- Synthetic polymer microparticles whose physical properties are permanently modified during the intended end use in such a way that the polymer no longer falls within the scope of this entry
- Synthetic polymer microparticles which are permanently incorporated into a solid matrix during the intended end use
- Food additives, food and feed, pharmaceuticals, in vitro diagnostics and fertilisers

These product groups will not be restricted, but an information and reporting obligation will be introduced. This can be applied to the product groups masterbatches and polymer-coated pigments.

Exceptions

- Use at industrial sites (4a)
- No synthetic polymer particle in end use (5b)
- Synthetic polymer particle integrated into a solid matrix in end use (5c)

² [EPDLA-position-paper-on-polymer-dispersions-redispersible-powders-and-synthetic-polymer-microparticles-May-2023.pdf \(lademo.dev\)](#)

Suppliers of synthetic polymer microparticles for use in industrial sites must provide information on use and disposal from 17 October 2025. This information will be provided to the industrial downstream user. In cases where confidentiality is required, additional information will be provided directly to the authority.

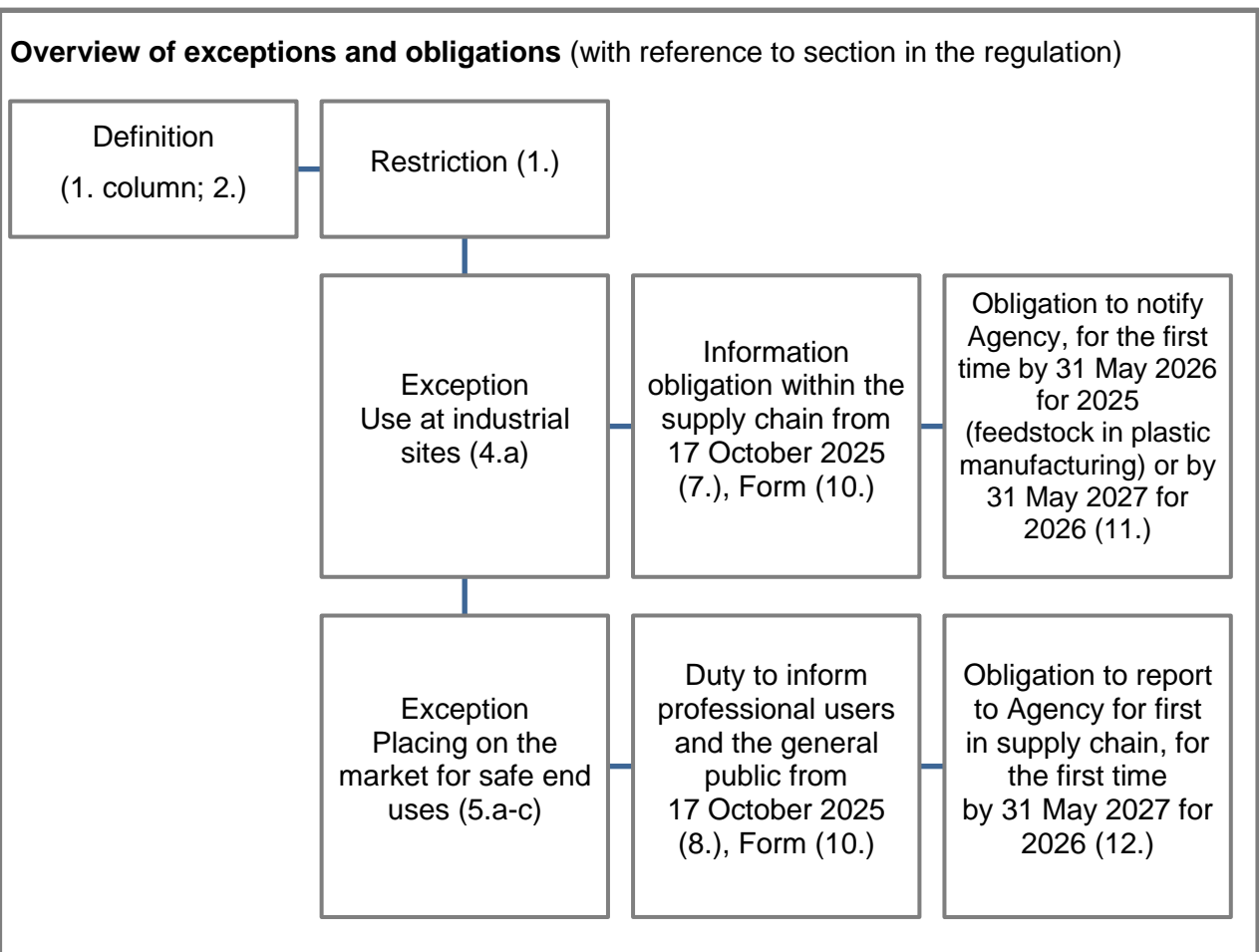
Duty to provide the following information

- Instructions for use and disposal, avoidance of release
- Statement: Synthetic polymer microparticles are subject to entry 78 of Annex XVII of Regulation (EC) No 1907/2006
- Quantity or content of polymer microparticles
- Identity of polymers contained

The information is provided in the form of clearly visible, legible and indelible text or in the form of pictograms.

The text or pictograms shall be placed on the label, on the packaging, in the package leaflet or safety data sheet. In addition to text or pictograms, a digital tool may be provided.

Additional information is only provided to the authority upon request or to show that a product is exempt from the regulations, e.g. because the polymer or polymer part is water soluble or degradable.



If the additional information is not available to industrial downstream users, they must request it from their supplier within 7 days of receiving the authority's request and inform the authority immediately. Suppliers must then provide the requested information to the industrial downstream user or directly to the competent authority within 30 days.

This additional information is more complex (minimum information Annex VI points 2.1 to 2.2.3 and 2.3.7).

Minimum information Annex VI

Regulation (EC) 1907/2006 (REACH), Annex VI, Information required under Article 10 Paragraph 2 = Identification of the substance

- 2.1 Name or other identifier of each substance
 - 2.1.1 Name(s) in the IUPAC nomenclature or other international chemical name(s)
 - 2.1.2 Other names (usual name, trade name, abbreviation)
 - 2.1.3 EINECS or ELINCS number (if available and appropriate)
 - 2.1.4 CAS name and CAS number (if available)
 - 2.1.5 Other identity code (if available)
- 2.2 Information related to molecular and structural formula of each substance
 - 2.2.1 Molecular and structural formula (including SMILES notation, if available)
 - 2.2.2 Information on optical activity and typical ratio of (stereo) isomers (if applicable and appropriate)
 - 2.2.3 Molecular weight or molecular weight range
- 2.3.7 Description of the analytical methods or the appropriate bibliographical references for the identification of the substance and, where appropriate, for the identification of impurities and additives. This information shall be sufficient to allow the methods to be reproduced.

Plastic pellet manufacturers and their stakeholders have already made efforts to reduce the release of microplastics, the voluntary industry initiative "Operation Clean Sweep" (OCS). The Commission therefore considers them to be in a position to start reporting on their use 12 months earlier.

The reporting obligation for manufacturers and industrial downstream users of synthetic polymer microparticles in the form of pellets, flakes and powders used as feedstock in plastic manufacturing at industrial sites will begin on 31 May each year from 2026.

Reporting obligation

- Description of the end uses
- Identity of the polymers
- Estimated quantity released to the environment in the previous year, including during transportation
- Reference to the derogation

For other manufacturers of synthetic polymer microparticles and other downstream users of synthetic polymer microparticles at industrial sites, the reporting obligation will start on 31 May each year from 2027.

Manufacturers, including importers and industrial downstream users, will be required to estimate and report their own emissions to the environment, including during transport.

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The Verband der Mineralfarbenindustrie e.V. represents German manufacturers of inorganic (e. g. titanium dioxide, iron oxides), organic and metallic pigments, fillers (e. g. silica), carbon black, ceramic and glass colours, food colourants, artists' and school paints, masterbatches and products for applied photocatalysis.

The VdMi is listed in the Lobbying Register for the Representation of Special Interests vis-à-vis the German Bundestag and the Federal Government (Lobbyregister des Deutschen Bundestags, number R000760) as well as the Transparency Register of the EU Commission (number 388728111714-79).