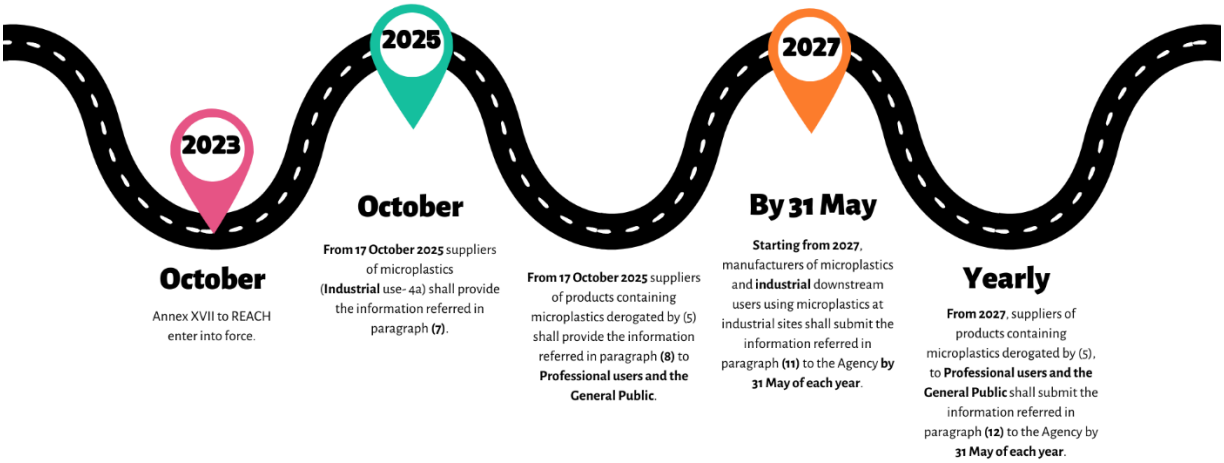
CEPE GUIDANCE
ON MICROPLASTIC RESTRICTION

SUMMARY

The REACH-microplastics restriction applies to paint and ink products which contain 'solid synthetic microparticles'. To know if your raw materials fall under the restriction, check with your supplier. Suppliers have to inform you about it before 17 October 2025.

IF your paint/ink is in scope, it still can be placed on the market because derogations may apply, refer to point two of this guidance. In case your paint/ink is derogated, manufacturer has to comply with two obligations. The first obligation is to provide information to customers, refer to points three and four to this guidance. The second obligation is to report on emissions to the European Chemicals Agency (ECHA) annually, refer to points six and seven.

TIMELINE



GENERAL INFORMATION

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Link to the legal text: EUR-Lex - 32023R2055 - EN - EUR-Lex (europa.eu)
Only legal text is binding.

1. ARE YOU IN SCOPE OF THE RESTRICTION?

You are in scope of the restriction if your paint or ink contains synthetic polymer microparticles. This is the official text; we will extract what is relevant for paints and inks below.

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.

The following polymers are excluded from this designation:

(a) polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified substances;

(b) polymers that are degradable as proved in accordance with Appendix 15;

(c) polymers that have a solubility greater than 2 g/L as proved in accordance with Appendix 16;

(d) polymers that do not contain carbon atoms in their chemical structure.

Most relevant for paints and inks:

Substances and mixtures containing at least 0.01% of synthetic polymer microparticles are in scope of the restriction. The polymers must be solid (hence not gaseous nor liquid) AND:

- are contained in particles and constitute at least 1 % by weight of those particles; or build a continuous surface coating on particles.
- and at least 1% of these particles are less than 5 mm.

Particles in paints/inks are almost always below 5 mm and paint/ink always contain more than 0.01% binder. The key question is whether the paint/ink particles are in solid form.

It is not normally the case for *solvent borne paint or UV curing coatings*, which are therefore out of scope. However, *some polymeric fillers, waxes and/or pigments* may be in scope. The information that suppliers will provide will be key in determining what is in scope and what is not. A company may also be manufacturing their own raw materials (mixtures such as binders) that could fall within the scope, which is the company responsibility to determine it.

The dispersed pigments in liquid paint or ink are out of scope of the restriction. If a pigment, filler or other powder component of a liquid ink or paint does not fall under the scope of the restriction by itself, the use of dispersing agents does not change this status. The dispersing agents are not chemically bound to the surface of pigments or other solid particles. The physical bonding in this situation is a dynamic process. This means, the dispersing agents are neither an inherent part of the solid particles nor does the interface have distinct defined physical boundaries.

The water-borne paints/inks may contain microplastics, depending on the position taken by the dispersion manufacturer. If you buy water-based dispersions or emulsions from a supplier who determines that their dispersions are not in scope, because they are not solid, your paint will not be in scope neither[1]. If your paint/ink is judged to be in scope, there will be information and reporting obligations (see below) and the supplier will provide you the necessary information for that.

Case of pigments: if the pigment is coated with a solid polymer from 1% on, then it is considered as microplastic. Here again the position of the pigment manufacturer will be important.

Powder coatings are made after extrusion and grinded in such a way that they fully fall in scope (100% microplastics).

2. WHAT CAN BE PLACED ON THE MARKET?

There is a general ban for placing on the market according to paragraph 1:

> **"**Shall not be placed on the market as substances on their own or, where the synthetic polymer microparticles are present to confer a sought-after characteristic, in mixtures in a concentration equal to or greater than 0,01 % by weight**".**

The terminology 'sought after characteristic' can be taken as 'intentionally added'. You intentionally use a binder to make a paint/ink.

Even if your paint/ink is in scope, it still can be placed on the market because derogations may apply:

> **"**4. Paragraph 1 (the ban) shall not apply to the placing on the market of:
> (a) synthetic polymer microparticles, as substances on their own or in mixtures, for use at industrial sites;

[1] EPDLA has issued a document end 2022 where they describe the 'pasty – non solid' nature of their particles based on MFFT (Minimum Film Forming Temperature).

5. Paragraph 1 (the ban) shall not apply to the placing on the market of the following synthetic polymer microparticles, as substances on their own or in mixtures:

(a) synthetic polymer microparticles which are contained by technical means so that releases to the environment are prevented when used in accordance with the instructions for use during the intended end use;
(b) synthetic polymer microparticles the physical properties of which are permanently modified during intended end use in such a way that the polymer no longer falls within the scope of this entry;
(c) synthetic polymer microparticles which are permanently incorporated into a solid matrix during intended end use."

The difference between ''out of scope'' and ''derogated'' is that there are no legal obligations in the restrictions for products out of scope, but for derogated products and their uses, there are obligations.

When a paint/ink is used by industrial users, paragraph 4(a) provides the derogation.

Protective coatings applied on steel beams in an industrial site; *printing inks* which are intended for industrial applications only are covered by this derogation.

For the waterborne paints and inks, derogation 5(b) applies because after a paint is applied the binder particles will agglomerate and lose their particle state irreversibly and form a film. If a paint *contains particles* which are embedded into the cured paint (the matrix) then paragraph 5(c) also derogates.

For some paints/inks, microplastics are supplied separately (For example in the form of glitters, dyes, catalysts, additives, etc.). In these cases, since there is no agreement within the CEPE community if derogation 5c can be used, it's up to individual members to define which is the most suitable way to proceed according to their own interpretation of the legal text.

3. WHEN DEROGATED BY PARAGRAPH 4(A) WHAT INFORMATION IS REQUIRED ACCORDING TO PARAGRAPH 7?

This is for industrial downstream users of paint/ink. **From 17 October 2025**, the following has to be provided:

> (a) instructions for use and disposal explaining to industrial downstream users how to prevent releases of synthetic polymer microparticles to the environment;
> (b) the following statement: 'The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council';
> (c) the information on quantity or, as applicable, concentration of synthetic polymer microparticles in the substance or mixture;
> (d) generic information on the identity of the polymers contained in the substance or mixture that enables manufacturers, industrial downstream users and other suppliers to comply with their obligations laid down in paragraphs 11 and 12.

For all products in scope, instructions on product handling and disposal best practices to prevent release to the environment should be provided.

For the reporting obligations according to paragraphs 11 and 12 see further below.

4. WHEN DEROGATED BY ART 5 WHAT ARE THE INFORMATION REQUIREMENTS ACCORDING TO PARAGRAPH 8?

For professional and consumer downstream users of paint/ink you will have to provide instructions on use and disposal. **From 17 October 2025**, the following applies**:**

> Suppliers of products containing synthetic polymer microparticles referred to paragraph 5, shall provide instructions for use and disposal explaining to professional users and the general public how to prevent releases of synthetic polymer microparticles to the environment.

If not already part of your label instructions, you should add instructions to avoid release to the environment. In addition to the obvious avoidance of throwing away the left-over paint/ink, this includes the avoidance of cleaning the brush and roller under the tap.
When these products are used as prescribed, the emissions of microplastics to the environment will be minimal.

CEPE suggests the following (minimum) instructions (as applicable).

Consumers:

- Do not flush paint down the drain, including when cleaning painting tools.
- Dispose of paint leftovers at your local household hazardous waste collection point.

Professionals:

- Do not flush paint down the drain, including when cleaning painting tools.
- Dispose of paint leftovers by contracting a waste management company.

5. HOW SHOULD THIS INFORMATION BE PROVIDED?

The paragraph 10 states the following:

> The information referred to in paragraphs 7, 8 and 9 shall be provided in the form of clearly visible, legible and indelible text or, where appropriate regarding the information in paragraphs 7 and 8, in the form of pictograms. The text or pictograms shall be placed on the label, the packaging, or the package leaflet of the products containing synthetic polymer microparticles or, regarding the information in paragraph 7, on the safety data sheet. In addition to the text or pictograms, suppliers may provide a digital tool that gives access to an electronic version of that information.
> Where instructions for use and disposal are provided in accordance with paragraphs 7, 8 and 9 in the form of a text, they shall be in the official languages of the Member States where the substance or mixture is placed on the market, unless the Member States concerned provide otherwise.

For professional users and consumers, it can be either on the label, the packaging or on the packaging leaflet. For industrial users of a paint/ink, the information can also be placed in the SDS.

6. WHAT ARE THE REPORTING OBLIGATIONS FOR PAINT/INK MANUFACTURERS AND INDUSTRIAL DOWNSTREAM USERS OF PAINT/INK ACCORDING TO PARAGRAPH 11?

Starting from 2027 an annual reporting to ECHA is requested (by 31 May of each year):

> (a) a description of the uses of synthetic polymer microparticles in the previous calendar year;
> (b) for each use of synthetic polymer microparticles, generic information on the identity of the polymers used;
> (c) for each use of synthetic polymer microparticles, an estimate of the quantity of synthetic polymer microparticles released to the environment in the previous calendar year, which shall include also the quantity of synthetic polymer microparticles released to the environment during transportation.
> (d) for each use of synthetic polymer microparticles, a reference to the derogation laid down in paragraph 4, point (a).

(11 a) To provide generic information of the uses, we recommend you the following options:

- Manufacturing of a paint, ink.
- Manufacturing of powder coatings.

(11 b) To provide generic information on the identity of the polymers used, we recommend you the following classes:

1. Styrene-butadiene copolymers
2. Styrene-acrylate copolymers
3. Acrylate (co)-polymers
4. Polyamide and polyurethane copolymers[2]
5. Alkyds
6. Polyketones copolymers
7. Polyolefinic copolymers[3]
8. Polyesters copolymers[4]
9. Epoxycopolymers
10. Polyethers and polyether amines copolymers[5]
11. Others (Specify)

[2] urea and formaldehyde polymers, PVP, amide waxes, acrylate-urethanes / PUR / PAC hybrids.
[3] waxes, including PVdC, halogenated PP…
[4] fumaric and maleic polymers, and hybrides from resin rosin or others, vinylacetates, castor- anhydride.
[5] PVB and others.

To keep coherence in the supply chain communication, we recommend you communicate the same polymer classes to both: the Agency and to your industrial downstream user. We expect that raw material suppliers to paint and inks manufacturers will use the same reference in terms of identity of polymers.

(11 c) For the estimation of the releases of microplastics to the environment, you will receive the information of the amount of microplastics from suppliers.

CEPE recommends multiplying the content of microplastics by a release factor to avoid reporting the amount of microplastics straight forward and having an overestimation on the amount of microplastics reported by paint/ink industry. You should use your own release factors.

You may have specific data for your company. In some countries the maximum allowed emissions to water can be determined by your permit to operate. Emissions to soil may be ''zero'' because of already existing pollution legislative local frameworks.

If you do not have data on the microplastics emissions from your manufacturing process, you can use the SpERC's release factors for solids emissions during the manufacturing process. These factors should be multiplied by the annual tonnage manufactured in your plant and the averaged concentration of microplastics in the products you manufacture.

Table 1. Release Factors (suggested) for Paint and Ink manufacturers.

	To water	To water	To soil
Solvent-borne, Solvent-free	0.05 %	0.001 %	0 %
Water-borne	0.05 %	0.05 %	0 %

According to paragraph 11 (c) to the restriction, the quantity of microplastics released to the environment during transportation should be also reported. You can report zero if the products are transported in closed containers according to good transport practices. For transport in open containers, tank trucks, tank wagons and sea containers, you should estimate yourself the releases to the environment (mainly during cleaning operations).

7. WHAT ARE THE REPORTING OBLIGATIONS FOR PAINT/INK MANUFACTURERS WHO SUPPLY TO PROFESSIONAL AND CONSUMERS ACCORDING TO PARAGRAPH 12?

From 2027 annual reporting to ECHA is required (by 31 May of each year):

> (a) a description of the end uses for which the synthetic polymer microparticles were placed on the market in the previous calendar year;
> (b) for each end use for which the synthetic polymer microparticles were placed on the market, generic information on the identity of the polymers placed on the market in the previous calendar year;
> (c) for each end use for which the synthetic polymer microparticles were placed on the market, an estimate of the quantity of synthetic polymer microparticles released to the environment in the previous calendar year, which shall include also the quantity of synthetic polymer microparticles released to the environment during transportation.
> (d) for each use of synthetic polymer microparticles, a reference to the applicable derogation or derogations laid down in paragraph 4, point (b), (d) or (e), or 5, points (b), or (c).

12 (a) For end uses the advice is to mention:

- Application of a coating on a substrate by a consumer or professional user.

12 (b) For the generic information on the identity of the polymer referred to 11 (b).

12 (c) For the estimated release to the environment, you will receive the information of the amount of microplastics from suppliers. CEPE recommends multiplying the content of microplastics by a release factor.

8. ADDITIONAL INFORMATION THAT COULD BE REQUESTED BY ENFORCEMENT AUTHORITIES ACCORDING TO PARAGRAPH 14.

> Manufacturers, importers and industrial downstream users of products containing synthetic polymer microparticles shall provide specific information on the identity of polymers covered by this entry contained in those products and the function of those polymers in the products to competent authorities upon their request. The specific information on the polymer identity shall be sufficient to unequivocally identify polymers and shall at least include the information laid down in points 2.1 to 2.2.3 and points 2.3.5, 2.3.6 and 2.3.7 of Annex VI, where applicable.
>
> If the information is not available to industrial downstream users, they shall request it from their supplier within 7 days from the receipt of the request from the competent authorities and shall inform the authorities of the request made without delay.

Having received the request referred to in the second subparagraph, the suppliers shall provide the requested information within 30 days to the industrial downstream user or directly to the competent authority requesting it.
Where the supplier provides the information to the industrial downstream user, the industrial downstream user shall forward that information to the competent authorities without delay.

Where the supplier provides the information directly to the authority, it shall without delay inform the industrial downstream user concerned to that effect.

Your industrial user may have to ask you further information on the identity of the polymer and the function of this polymer in the product and you may have to also ask your own supplier for that information (because of the request of your industrial customer or simply because you are manufacturing a product falling in scope) and this information shall be provided within a short time 30 days (through you or directly to the authority, the latter being the most likely option due to confidentiality).

If you are excluded because of solubility or biodegradability, you may be asked to justify by done under studies Appendix 15/16. Although the exclusion in this context is unlikely because of the type of polymers used in paints and inks.

ANNEX I Elements of references for potential advice to CEPE customers.

CEPE members may want to give advice to their customers oh how they could do the reporting, but CEPE members are not obliged to do so.

WHAT ARE THE REPORTING OBLIGATIONS FOR INDUSTRIAL DOWNSTREAM USERS OF PAINT/INK ACCORDING TO PARAGRAPH 11?

Starting from 2027 an annual reporting to ECHA is requested (by 31 May of each year):

(a) a description of the uses of synthetic polymer microparticles in the previous calendar year;
(b) for each use of synthetic polymer microparticles, generic information on the identity of the polymers used;
(c) for each use of synthetic polymer microparticles, an estimate of the quantity of synthetic polymer microparticles released to the environment in the previous calendar year, which shall include also the quantity of synthetic polymer microparticles released to the environment during transportation.
(d) for each use of synthetic polymer microparticles, a reference to the derogation laid down in paragraph 4, point (a).

(11 a) To describe the **uses,** your costumer can use the following recommendation:

- Industrial application of coatings.

(11 b) Your customer will use the information on the **identity** of the polymer that you supplied. Refer to point six to this guidance.

(11 c) Your customer will base its report on the information you provided. CEPE recommends multiplying the content of microplastics by a release factor to avoid reporting the amount of microplastics straight forward and having an overestimation on the amount of microplastics reported by paint/ink industry.

ANNEX II - Microplastics Restriction Mind Map

For those members already familiar with the legal text, the following mind map may be useful as a support memory tool.