



# **CE/EFfCI Guidance on the EU Microplastics Restriction**

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# **PLEASE NOTE:**

# This document <u>IS NOT</u> formal legal advice – it is for guidance only

Please send all requests for the inclusion of additional information to: mpguidance@cosmeticseurope.eu





### The key elements of the Restriction for the Cosmetic Industry

### 1. THE DEFINITION

### Synthetic polymer microparticles (SPM):

Polymers that are solid and which either are contained in particles and constitute at least 1 % by weight of those particles, or build a continuous surface coating on particles, where at least 1 % by weight of those particles fulfil either of the following conditions:

- a. all dimensions of the particles are equal to or less than 5 mm;
- **b.** the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.

### Lower Size limit:

Where the concentration of synthetic polymer microparticles covered by this entry **cannot be determined by existing analytical methods** or accompanying documentation in order to verify the compliance with the concentration limit [0.01% by weight] only the particles of at least the following size shall be taken into account:

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

### Key points:

The definition does not refer to microplastics. There are no named substances. Companies need to apply the definition, taking into account the characteristics of the substance in question (see decision tree in Appendix 1).





#### 2. SUBSTANCES NOT IN SCOPE OF THE BAN

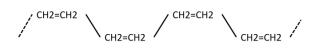
#### A. Natural Polymers

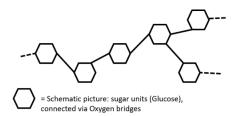
• Polymers that are the result of a polymerisation process that has taken place in nature, independently of the process through which they have been extracted, which are not chemically modified.

#### **Examples:**

Natural rubber

Xanthan Gum





#### Key points to note:

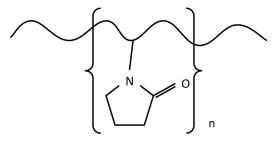
- Polymers obtained by fermentation (a biotechnology process) are not considered natural polymers
  - The polymerisation process takes place in an industrial setting and therefore does not meet the definition "...polymerisation process that has taken place in nature..."

#### B. Water soluble polymers

• Polymers that have a solubility of greater than 2g/L

#### Example:

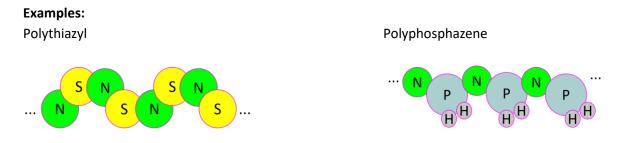
Polyvinyl pyrrolidone







### C. Polymers without carbon atoms in their structure



### D. Biodegradable Polymers

- Polymers that meet pass criteria using test guidelines and conditions specified within the text of the restriction see Appendix 15
- Each methodology has been placed in a group groups 1 to 5.
  - For groups 1-3, a pass in one test is sufficient to place a polymer outside the scope of the ban.
  - For groups 4 and 5 biodegradability needs to be proven in three different compartments.

### 3. SUBSTANCES IN SCOPE OF THE RESTRICTION BUT NOT LIMITED TO 0.01% (I.E. DEROGATED USE)

### A. SPM used at industrial sites.

- Paragraph 4 (a) of the restriction see section 4 below.
- B. SPM physical properties are permanently modified during formulation at an industrial site.
  - Paragraph 4(a) of the restriction see section 4 below.
- C. SPM where there is no release into the environment during use because they are contained by technical means.
  - Paragraph 5(a) of the Restriction.
- D. SPM where physical properties are permanently modified during consumer end use.
  - Paragraph 5(b) of the Restriction see section 5 below.
- E. SPM that are permanently incorporated into a solid matrix at the time of use.
  - Paragraph 5(c) of the Restriction

#### Key points to note:

- Labelling and/or reporting obligations are in place for all substances where the above derogations are applied. See section 9.
- According to ECHA, the derogated use under 5(c) would not normally apply to cosmetics uses due to their temporary nature.





### 4. PARAGRAPH 4A - THE 'INDUSTRIAL SITES' DEROGATION

- Companies may receive SPM from raw materials suppliers (who have labelling and Instructions for Use and Disposal obligations). During the manufacture of the product, the SPM may cease to meet the definition – e.g. because they are no longer particles.
- The use of SPM in these circumstances is permitted.
- However, there is an obligation to Report in respect of use at industrial sites . See section 9 below.

**Example:** SPM dissolved during manufacture – physical properties are permanently modified and therefore, polymers are no longer in particle form

- Solvent & processing as particles are solubilized
- As there are no SPM in the finished product, this derogation applies

### Key points to note:

• This Derogation should not be confused with Derogation 5(b) below. Derogation 5(b) applies when the physical properties of the SPM are permanently modified **during consumer end use**.

in liquid product environment

- Test methodologies to demonstrate physical properties of the SPM have been permanently modified are not listed in the Restriction.
  - o Identified as a key area for further work see "Areas for further work / interpretation"

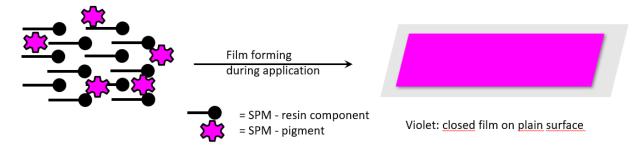




### 5. <u>PARAGRAPH 5(B) – WHERE THE PHYSICAL PROPERTIES ARE PERMANENTLY MODIFIED DURING</u> <u>CONSUMER END USE</u>

- The Restriction aims to cover SPM that may enter the environment. This derogation addresses scenarios when the finished product as placed on the market contain SPM, but they are permanently modified during consumer use e.g. by coalescing into a film during or following application.
- If during the use of the product by the consumer or professional end user the SPM cease to meet the definition i.e. they change their size and / or shape, they are not restricted to 0.01%
- For example, this could apply because the SPM form a film, or because the polymer swells, changing size and/or shape in use.
- These products need to be labelled with Instructions for Use and Disposal. See section 9.
- They are also subject to Reporting obligations see Section 8

### Typical example: Nail polish



### Key points to note:

- Film formers which lose their particle form during formulation and are not present in the finished product are covered by Derogation 4a (section 4)
- Test methodologies to demonstrate physical properties of the SPM have been permanently modified are not listed in the Restriction.
  - Identified as a key area for further work see "Areas for further work / interpretation"





### 6. PARAGRAPH 6 - TRANSITION TIMES

If an SPM is neither out of scope or falls under a derogated use, then ultimately, use will be restricted to less than 0.01% by weight.

Paragraph 6 of the Annex to the legal text details the number of years after which the use of SPM at >0.01% will be banned based on intended application. These are referred to as transition periods.

Transition periods are as follows:

| APPLICATION  | # YEARS IN<br>TRANSITION<br>PERIOD | TRANSITION<br>PERIOD END DATE |
|--|------------------------------------|-------------------------------|
| Microbeads used in any application   | 0                                  | 16 October 2023               |
| Rinse off cosmetic products  | 4                                  | 16 October 2027               |
| • Detergents, waxes, polishes and air care products  | 5                                  | 16 October 2028               |
| Fertilisers  |                                    |                               |
| <ul> <li>Leave on cosmetic products (excluding lip, nail and make-up applications)</li> </ul>  | 6                                  | 16 October 2029               |
| Fragrance encapsulates used in any application   |                                    |                               |
| Medical devices  |                                    |                               |
| <ul> <li>Agricultural and horticultural uses that are not<br/>plant protection products, seeds or biocides</li> <li>Granular infill on sports field</li> </ul> | 8                                  | 16 October 2031               |
| Make up, Lip and Nail leave on cosmetic products   | 12                                 | 16 October 2035               |

Note that for Make up Lip and Nail products, from 17 October 2031 such products must be labelled 'Contains Microplastics' if they contain SPM. Products already on the market at that date do not have the obligation until December 17<sup>th</sup> 2031



### 7. PLACING ON THE MARKET

- The ban applies to the placing of substances on the market.
- Please note, the definition of "placing on the market" is worded differently in REACH compared to the Cosmetics Regulation.

### Key points to note:

- NB 'Placing on the market' under REACH means that is it forbidden by this date to introduce new products to the market and it is also forbidden to continue selling existing products that are already on the shelves.
- This is different from the Cosmetics Regulation where there is usually a sell through period.

### 8. PARAGRAPH 7 – INFORMATION REQUIREMENTS

- From 17 October 2025, suppliers of SPM will provide the following:
  - Instruction for use and disposal for downstream user explaining how to avoid releases into the environment
  - SPM statement (SPM supplied in accordance with the Restriction)
  - The quantity or concentration of SPM in the substance or mixture supplied
  - Generic identity details required to comply with reporting requirements

### Key points to note:

- Information can be provided on the SDS, primary or secondary packaging, or leaflet
- How to identify the SPM is specified for the purpose of reporting is not specified. However, Paragraph 14 of the Restriction does highlight additional information that could be requested by the authorities – **See section 10**.
  - Ingredients suppliers will provide the following generic data:
    - Name
    - EC Number or number assigned by ECHA
    - CAS Name
    - CAS number





### 9. PARAGRAPHS 5 AND 8 - INSTRUCTIONS FOR USE AND DISPOSAL (IFUD)

- All products containing SPM using a derogation under paragraph 5(b) must provide Instructions for Use and Disposal (IFUD)
- The purpose of the IFUD is to prevent the release of unmodified particles into the environment. In the case of cosmetics, their normal intended use will lead to the permanent modification, and therefore CE's interpretation is that Instructions for *Use* are not required. Instructions for Disposal would apply to prevent the release of unmodified SPM in unused product residues.
- Cosmetics Europe recommends that IFUD should consist of the message '*Do not rinse packaging before disposal* ', using the following pictogram:



### Key points to note:

- IFUD do not need to be added to sealed packaging such as aerosols where there is no possibility of the consumer accessing the residue. However, the obligations applies even where there is a small aperture as in e.g. mascara
- The pictogram can be on secondary or primary packaging, or the package leaflet
- The pictogram should appear in the area where the other 'end of life' information is communicated. It can be supplemented (but not replaced) by digital means
- At this stage this is a CE Recommendation only and has not been formally endorsed by the Commission





### 10. PARAGRAPH 11 AND 12 - REPORTING REQUIREMENTS

• The data that needs to be provided depends on the derogation you are using for your product:

| Derogation<br>Paragraph | Description  | First reporting deadline | Data required for submission  |
|-------------------------|--|--------------------------|---|
| 4(a)                    | Use of SPM at industrial sites<br>as a substance or in a mixture | 31 May 2027              | <ul> <li>Uses of SPM in previous calendar year</li> <li>Generic information on identity</li> <li>For each use estimate of releases to the environment (including transportation)</li> <li>Reference to 4(a) derogation</li> </ul> |
| 5(a)                    | SPM contained by technical means                                 | 31 May 2027              | <ul><li>Description of end uses</li><li>Generic information on</li></ul>  |
| 5(b)                    | SPM physical properties<br>permanently modified in use           |                          | <ul><li>identity</li><li>Estimate of releases for each</li></ul>  |
| 5(c)                    | SPM is permanently incorporated into a solid matrix              |                          | <ul><li>end use</li><li>Reference to applicable derogation</li></ul>  |

Some key points to note include:

- Reporting to ECHA is mandatory annually and must be submitted by 31 May each year
- **Please note:** if making plastics using pellets, powders or flakes, reporting starts from 2026. Data requirements are as per paragraph 4(a)



### 11. PARAGRAPHS 13 & 14 - PROVISION OF ADDITIONAL SPM IDENTIFIERS TO ENFORCING AUTHORITIES

- ECHA will provide all data submitted in line with Paragraphs 11 and 12 to national authorities.
- National authorities will be responsible for enforcement of the Restriction within its own country
- National regulatory authorities can request additional SPM identifiers, in addition to what has been provided in accordance with paragraphs 11 and 12, of any SPM placed on the market at any point in the supply chain during yearly reporting.
- Key points to note:
  - Available information must be provided to the regulatory authorities within 30 days of receiving the request.
  - In case requested information is not available, request must be forwarded upstream to the supplier within 7 days, and in parallel, the competent authority must be informed of this.
  - When the data request is received by a downstream user, the SPM manufacturer can provide data to the downstream user or directly to the regulatory authorities
  - Data endpoints required will be:
    - Name
    - IUPAC Name
    - Other name (usual name, trade name, abbreviation)
    - EC Number or number assigned by ECHA(\*)
    - CAS Name(\*)
    - CAS number(\*)
    - Other identity code, such as customs number(\*)
    - Molecular formula
    - Structural formula (including SMILES is available) or crystal structure(\*)
    - Optical activity and typical ratio of (stereo) isomers(\*)
    - Molecular weight or molecular weight range
    - Qualitative analytical data UV-VIS, IR, NMR, MS or diffraction data
    - Quantitative analytical data chromatographic, titrimetric, elemental analysis or diffraction data
    - Description of analytical methods
    - Experimental protocols
    - Relevant interpretation of the results

(\*) if available / appropriate

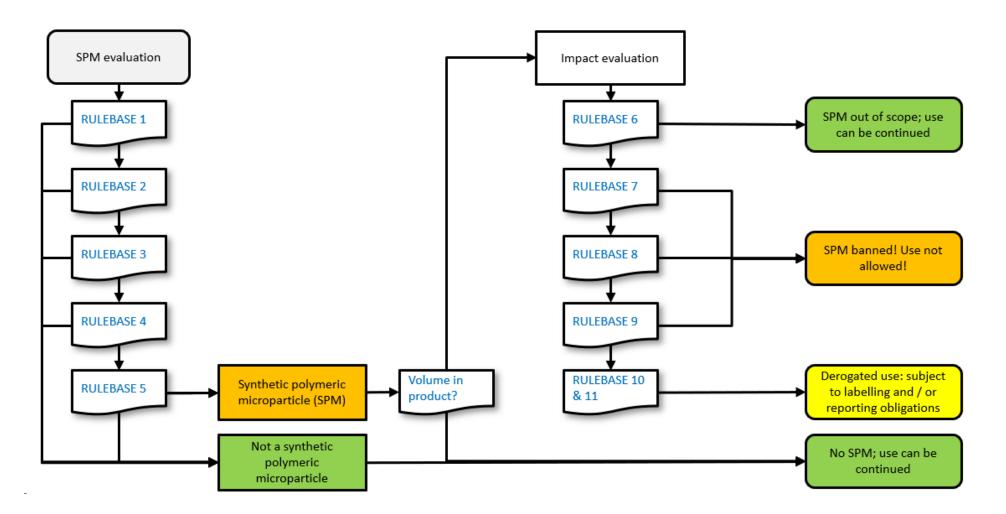
### 12. PARAGRAPH 15 – DEMONSTRATION OF COMPLIANCE WITH EXEMPTION CRITERIA – SECTION 2

- Where SPM fall out of scope of this restriction due to their biodegradability or solubility, regulatory authorities can request supporting reports.
- Data must be provided without undue delay.





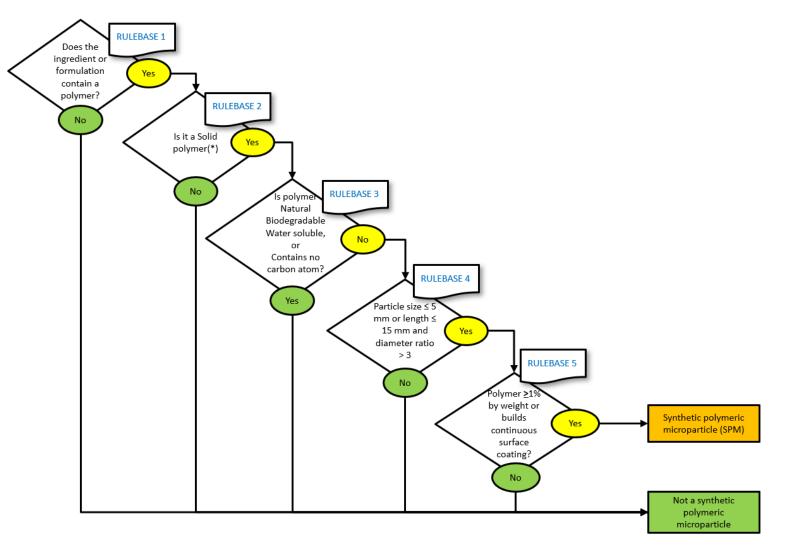
How to decide if your polymer is a synthetic polymer microparticle (SPM)







### Is the substance a synthetic polymer microparticle (SPM)?







### **RULEBASE 1 – DOES MY INGREDIENT OR FORMULATION CONTAIN A POLYMER?**

The first question in the flow chart addresses whether or not polymers are present in our ingredient or formulation:

- If yes, you need to move to the next section of the flow chart to understand if the polymer meets the criteria laid out in the Restriction
- If no, then your ingredient or formulation is out of scope of the Restriction no further action is required

**Please note:** ECHA's preferred analytical method for determining whether a substance is a polymer or not is GPC as per section 4 of the ECHA Guidance on Monomers and Polymers (v.3, February 2023).



Not all polymers are classified as Synthetic Polymer Microparticles (SPM). Only polymers meeting the specific criteria laid out in the Restriction are in scope.

The next four steps in the flowchart will help determine if the polymer contained in the ingredient or formulation is classified as a Synthetic Polymer Microparticle (SPM).

### RULEBASE 2 – IS THE POLYMER SOLID?

Solid is defined within the Restriction as "not a liquid or gas". Conditions for determining whether a material is a liquid or gas are explicitly detailed in the Annex:

- GAS:
  - A substance or mixture which at 50 °C has a vapour pressure greater than 300 kPa (absolute), or is completely gaseous at 20 °C at a standard pressure of 101,3 kPa;
- LIQUID:
  - A substance or mixture that meets any of the following conditions:
    - The substance or mixture at 50 °C has a vapour pressure of not more than 300 kPa, is not completely gaseous at 20 °C and at a standard pressure of 101,3 kPa, and has a melting point or initial melting point of 20 °C or less at a standard pressure of 101,3 kPa;
    - The substance or mixture fulfils the criteria in the American Society for Testing and Materials (ASTM) D 4359-90 Standard Test Method for Determining Whether a Material Is a Liquid or a Solid;
    - The substance or mixture passes the fluidity test (penetrometer test) described in chapter 2.3.4 of Part 2 of Annex A to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) concluded at Geneva on 30 September 1957;

### If your polymer meets the definition of a liquid or gas it is out of the scope of the Restriction

- SUSPENSION / DISPERSION / MIXTURE:
  - Some substances are in solid form need to determine if the polymer is in liquid or solid form
    - Test methods to do this are not specified in the Restriction it is at the discretion of industry to determine a scientifically credible methodology

### Points for further deliberation / agreement moving forward:

Determination of physical state of polymers in suspensions / dispersions / mixtures:

• Industry to agree methodologies to determine if the polymer is in a solid state





### RULEBASE 3 - SUBSTANCES OUTSIDE THE SCOPE OF THE BAN

### 1. Natural Polymers

The term "natural polymer" is defined in the Restriction as a substance:

- Where polymerisation took place in nature (before extraction occurred)
- That is not chemically modified

The Restriction does not contain guidance on what is meant by "extraction" or "chemical modification". However, EU REACH contains definitions for the following terms:

- Substances that occur in nature (i.e. natural substances)
  - a naturally occurring substance as such, unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which is extracted from air by any means;
- Not chemically modified substance:
  - a substance whose chemical structure remains unchanged, even if it has undergone a chemical process or treatment, or a physical mineralogical transformation, for instance to remove impurities

In the EU Restriction, substances that occur in nature, are described slightly differently:

 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;

### Points for further deliberation / agreement moving forward:

Determination of how to interpret the potentially different definitions:

- Develop common understanding of methods of extraction are permitted under the Restriction
- Discuss if required, position on exclusion of biofermentation products from the "natural" derogations





### 2. Water soluble polymers

Water soluble polymers are defined as polymers with a water solubility of >2g/L.

Appendix 16 of the Restriction details specific test guidelines, test conditions and pass criteria that must be followed to prove solubility in water:

| Permitted test methods |   | Test conditions      | Pass criteria |
|------------------------|---|----------------------|---------------|
| OECD 105               | 0 | Temperature – 20°C   | >2g/L         |
| OECD 120               | 0 | рН — 7               |               |
|                        | 0 | Loading – 10g/1000ml |               |
|                        | 0 | Test time – 24 hours |               |

Some key points to note:

- Tests must be performed by labs compliant with GLP, ISO 17025 or other international standards accepted by ECHA
  - Currently GLP is not a requirement for phys-chem endpoints under EU REACH.
- Testing should be carried out on material comparable in terms of composition, form, size and surface area to the polymer particle present in the product.
  - If this isn't technically feasible to test the particle, a test can be performed on the polymer itself
- Authorities can request the full test report if so, it must be provided without delay by the data owner

### 3. Polymers without carbon atoms in their structure

Polymers that do not contain carbon atoms are out of scope of this Restriction





### 4. Biodegradable Polymers

Polymers that are biodegradable are not in scope of the Restriction. The exact methodologies, test conditions and pass criteria are detailed in Annex 15 of the Restriction.

The test methodologies permitted have been grouped together based on their ultimate endpoint. There are 5 groups in total. If performing tests from groups 4 and 5, the polymer must pass a test in each of the 3 compartments to be considered out of scope.

A summary of the test methods permitted, the groups they belong to and the pass criteria are show in the table below:

| Group<br># | Permitted test<br>methods |    | Test duration         | Pass criteria   | # tests required<br>to be out of<br>scope |
|------------|---------------------------|----|-----------------------|-----------------|---|
| 1          | OECD 301B                 |    |                       |                 |   |
|            | OECD 301C                 |    |                       |                 |   |
|            | OECD 301D                 |    | 28d                   | 60%             | 1   |
|            | OECD 301F                 |    |                       |                 |   |
|            | OECD 310                  |    |                       |                 |   |
| 2          | OECD 301B                 |    |                       |                 |   |
|            | OECD 301C                 |    |                       |                 |   |
|            | OECD 301D                 |    | 28 – 60d              | 60%             | 1   |
|            | OECD 301F                 |    |                       |                 |   |
|            | OECD 310                  |    |                       |                 |   |
|            | OECD 306                  |    |                       |                 |   |
| 3          | OECD 302C                 |    | 14d                   | <u>&gt;</u> 70% | 1   |
| 4          | EN ISO 14852:2021         |    |                       |                 |   |
|            | EN ISO 14851:2019         | 1. | Aquatic – 6mo         |                 |   |
|            | EN ISO 19679:2020         | 2. | Soil – 24mo           | <u>&gt;</u> 90% | 3 – one from each                         |
|            | EN ISO 18830:2016         | 3. | Sediment – 24mo, or;  |                 | compartment                               |
|            | EN ISO 17556:2019         |    | Water/sediment – 24mo |                 |   |
|            | ISO 22404:2019            |    |                       |                 |   |
| 5          | OECD 307                  | 1. | Water – <60d          | Degradation     | 3 – one from each                         |
|            | OECD 308                  | 2. | Sediment – <180d      | half life       | compartment                               |
|            | OECD 309                  | 3. | Soil <180d            |                 |   |

Note: this table is a summary only. For full details on specific test conditions, please refer to the legal text

Some key points to note on accepted test methodologies:

- $\circ$   $\,$  OECD 301A and E are not considered acceptable test methods
- OECD 302C pass criteria has been modified testing window is **14 days** (not 28 as per the guideline)



There are also some key points to note on how tests should be carried out:

- Tests must be performed by labs compliant with GLP, ISO 17025 or other international standards accepted by ECHA
- Testing should be performed under conditions that are comparable in terms of:
  - Composition, form, size and surface area in the product or,
  - If not feasible, the polymer particles as disposed of / released to the environment
- Polymers used in encapsulation may be tested in any of the following forms:
  - In the form placed on the market
  - In the form of isolated coating
  - In the form placed on the market where the organic core of the material is replaced by an inert material
- Where the polymer is part of a mixture:
  - The test material contains more than one polymer
    - The test material and each polymer requires its own test; or
    - The test material can be tested as a whole as long as you can prove each of the polymers passes the criteria of the test carried out
  - The mixture contains a single polymer and non-polymeric organic components at >10%:
    - The test material and each polymer requires its own test; or
    - The test material can be tested as a whole as long as you can prove each of the polymers passes the criteria of the test carried out
- Authorities can request the full test report if so, it must be provided without delay by the data owner

### Points for further deliberation / agreement moving forward:

Biodegradability testing capacity is limited.

- Consider the use of read-across as per EU REACH permissions
- Consider the application of interpolation principles as per EU Detergents Regulation
- Review and interpret exactly how SPM should be tested

### RULEBASE 4 – PARTICLE SIZE & PARTICLE SIZE DISTRIBUTION

### Particle size

For a particle to be in scope of the Restriction, **all dimensions** must be equal to or less than 5mm. This means:

- A particle with at least one dimension >5mm is not a SPM
- If material is a solid, block it does not meet the size criteria required to define the substance or mixture as a Synthetic Polymer Microparticle (SPM) and therefore is out of scope of the Restriction

The Restriction does not specify test methods to use for particle size determination.



Section R.7.1.1.4 of the Guidance on Information Requirements and Chemical Safety Assessment<sup>1</sup>, published by ECHA lists test methods to determine particle size measurements of solids and solids suspended in liquids. None of the methodologies listed cover the particle size range covered by this Restriction.

It is at the discretion of industry to determine a scientifically credible methodology

### Particle size distribution

It is known within industry particle size is not uniform – there will be a distribution of particle sizes (e.g. as per nanomaterials). In line with the 2022 EU Recommendation on the definition of nanomaterial<sup>2</sup>, a cut off of 50% by number particles is recommended to classify as SPM.

### Points for further deliberation / agreement moving forward:

Particle size measurement:

- Industry to agree methodologies for measurement of particle size
  - o Solids
  - Solid matter in suspensions

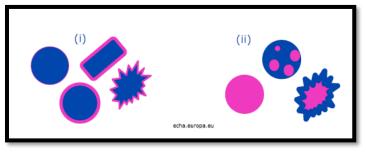
Particle size distribution:

• Review the potential pitfalls of adopting the "nano approach" to particle size distribution?

### **RULEBASE 5 - % INCLUSION AND SURFACE COATING**

If the polymer **does not** meet the following criteria, it is out of scope:

- i. Forms a continuous surface coating of any thickness on particles
- ii. Present at <u>></u> 1%



By this point in the flow chart, you will have determined whether or not you have an SPM. The next part of the flow chart navigates the use of potential derogations.

If your product does contain a SPM, then what happens next is volume dependent:

- If the SPM is present at less than 0.01%, you can continue to use the material and Have no further obligations
- If the SPM is present at greater than or equal to 0.01%, continued use depends on Compliance with any of the listed derogations.

The next part of the flow chart navigates through the use of potential derogations

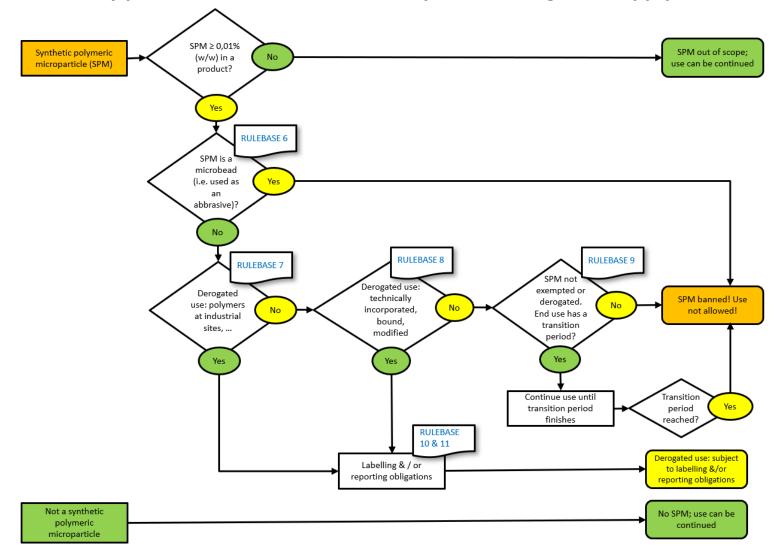
<sup>&</sup>lt;sup>1</sup> Guidance on Information Requirements and Chemical Safety Assessment - ECHA (europa.eu)

<sup>&</sup>lt;sup>2</sup> EUR-Lex - 32022H0614(01) - EN - EUR-Lex (europa.eu)





My product contains a SPM. Do any of the derogations apply?







### RULEBASE 6 – IS MY SPM A MICROBEAD?

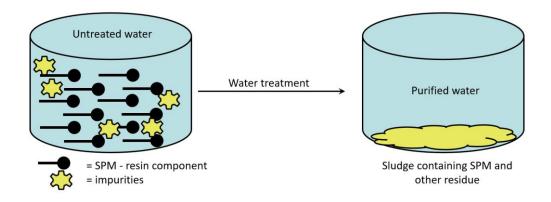
Microbeads are defined within the text of the legislation as:

• Synthetic polymer microparticles for use as an abrasive, i.e. namely to exfoliate, polish or clean, mainly used in rinse-off cosmetic products or detergents

### SPM meeting this definition are already banned at >0.01%. Entry into force was 17 October 2023.

### **RULEBASE 7 - THE 'INDUSTRIAL SITES' DEROGATION**

- Companies are allowed to manufacture and use SPM in an industrial setting at >0.01%
- During use/formulation at the industrial site, it is also possible the SPM may change in such a way it no longer meets the definition of SPM in the cosmetic product e.g. because its size and / or shape are modified when mixed with other ingredients.
- However, there is an obligation to report. See Rulebases 10 and 11.



### RULEBASE 8 – OTHER DEROGATED USES

Derogated uses allow the use of an SPM at  $\geq$ 0.01% and apply to the SPM as it enters the environment.

There are derogations for 3 different scenarios listed in the Annex to the Restriction:

- If during end use there is no release of the SPM to the environment dues to containment by technical means (paragraph 5a)
- If during the use of the product by the consumer the physical properties of the SPM change so it no longer meets the definition of SPM (paragraph 5b)
  - $\circ~$  i.e. the SPM is no longer a solid, or is >5mm in at least one dimension etc.
  - An example of this could be an SPM that forms a film in use or a swellable polymer that changes its size and shape in use.
- If during use the SPM are incorporated into permanent solid matrix (paragraph 5c)

Under the current proposal, these products need to be labelled with Instructions for Use and Disposal. **See Rulebases 10 and 11**.



### Some key points to note:

Test methodologies to demonstrate physical properties of the SPM have been permanently modified are not listed in the Restriction.

• It is at the discretion of industry to determine a scientifically credible methodology

### Points for further deliberation / agreement moving forward:

Proving physical properties of the SPM are modified:

- Industry to agree methodologies to demonstrate modification of physical properties for the following applications / scenarios
  - Film formers
  - Swellable polymers
  - o Others?

### **RULEBASE 9 – TRANSITION TIMES**

If an SPM is neither out of scope or falls under a derogated use, then ultimately, use will be restricted to less than 0.01% by weight.

Paragraph 6 of the Annex to the legal text details the number of years after which the use of SPM at >0.01% will be banned based on intended application. These are referred to as transition periods.

Transition periods are as follows:

| APPLICATION  | # YEARS IN<br>TRANSITION<br>PERIOD | TRANSITION<br>PERIOD END DATE |
|--|------------------------------------|-------------------------------|
| Microbeads used in any application   | 0                                  | 16 October 2023               |
| Rinse off cosmetic products  | 4                                  | 16 October 2027               |
| <ul> <li>Detergents, waxes, polishes and air care products</li> <li>Fertilisers</li> </ul>   | 5                                  | 16 October 2028               |
| <ul> <li>Leave on cosmetic products (excluding lip, nail and make-up applications)</li> <li>Fragrance encapsulates used in any application</li> <li>Medical devices</li> </ul> | 6                                  | 16 October 2029               |
| <ul> <li>Agricultural and horticultural uses that are not<br/>plant protection products, seeds or biocides</li> <li>Granular infill on sports field</li> </ul>                 | 8                                  | 16 October 2031               |
| Make up, Lip and Nail leave on cosmetic products   | 12                                 | 16 October 2035               |

Note that for Make up Lip and Nail products, from 17 October 2031 such products must be labelled 'Contains Microplastics' if they contain SPM.



### RULEBASE 10 – LABELLING OBLIGATIONS

The exact labelling obligations are dependent on who is going to use the substance or mixture containing the SPM:

- Workers at an industrial site
- Professional users or consumers

### Workers at an industrial site:

- From 17 October 2025, suppliers of SPM will provide the following:
  - Instruction for use and disposal for industrial downstream user explaining how to avoid releases into the environment
  - SPM statement
  - o The quantity or concentration of SPM
  - o Generic identity details required to comply with reporting requirements

How to identify the SPM is specified for the purpose of reporting is not specified. However Paragraph 14 of the Restriction does highlight additional information that could be requested by the authorities – **See section 10 of The Key elements of the Restriction for the Cosmetics industry**.

Ingredients suppliers will provide downstream users with the following generic data:

- Name
- EC Number or number assigned by ECHA
- CAS Name
- CAS number

Information can be provided on the MSDS, primary or secondary packaging.

### Professional users or consumers:

Cosmetics Europe recommends that Instructions for use and disposal (IFUD) should consist of the message 'Do not rinse packaging before disposal', using the following pictogram:



Some key points to note:

- IFUD do not need to be added to sealed packaging such as aerosols where there is no possibility of the consumer accessing the residue. However, the obligations applies even where there is a small aperture as in e.g. mascara
- The pictogram can be on secondary or primary packaging, or the package leaflet
- The pictogram should appear in the area where the other 'end of life' information is communicated
- It can be supplemented (but not replaced) by digital means
- This is a CE recommendation only





### **RULEBASE 11 – REPORTING OBLIGATIONS**

If the SPM you are using falls under one of the derogations contained in the legal text, you are allowed to use it at >0.01% in your product, but you will have reporting and / or labelling obligations.

The data that needs to be provided depends on the derogation you are using for your product:

| Derogation<br>Paragraph | Description  | First reporting deadline | Data required for submission   |
|-------------------------|--|--------------------------|--|
| 4(a)                    | Use of SPM at industrial sites<br>as a substance or in a mixture | 31 May 2027              | <ul> <li>Uses of SPM in previous calendar year</li> <li>Generic information on identity</li> <li>For each use estimate of releases (including transportation)</li> <li>Reference to 4(a) derogation</li> </ul> |
| 5(a)                    | SPM contained by technical means                                 | 31 May 2027              | <ul><li>Description of end uses</li><li>Generic information on</li></ul>   |
| 5(b)                    | SPM physical properties<br>permanently modified in use           |                          | <ul><li>identity</li><li>Estimate of releases for each</li></ul>   |
| 5(c)                    | SPM is permanently incorporated into a solid matrix              |                          | <ul><li>end use(including<br/>transportation)</li><li>Reference to applicable<br/>derogation</li></ul>   |

Some key points to note include:

- Reporting to ECHA is mandatory annually and must be submitted by 31 May each year
- **Please note:** if making plastics using pellets, powders or flakes, reporting starts from 2026. Data requirements are as per paragraph 4(a)





### **Frequently Asked Questions**

### 1. Who determines if a raw material is an SPM?

Both raw material manufacturers and downstream users of the SPM have a role to play in the assessing if a raw material is an SPM.

Whilst raw material manufacturers will be able to confirm polymeric status, water solubility, degradation of the polymer as supplied and / or particle size, the Restriction focuses on end use of the SPM. Derogations require a knowledge of how the SPM behaves within the formulation and when used by the consumer. This knowledge lies with the downstream user.

It is likely raw material suppliers and downstream users will be required to work closely together to answer this question.

### 2. Is a list of INCI names available for SPMs which are covered by Restriction?

No such list is available

### 3. Who determines if derogation 4a or 5b applies?

Derogation 4(a) refers to use of SPM at industrial sites, whereas derogation 5(b) refers to the changing of physical properties at the time of use.

For derogation 4(a), use at an industrial site can be >0.01%.

However, when as part of derogation 4(a) and 5(b), the SPM ceases to meet the definition of SPM, it is the responsibility of the user/formulator to prove compliance with these derogations. Guidance on how a SPM behaves in formulation may be available from the raw material supplier. However, how the molecule behaves in the formulation and at the point of end use is influenced by the formulation itself. Formulations are varied in the ingredients they contain, which in turn influences the properties of the formulation and could in turn impact how the SPM behaves in the formulation.

# 4. What if a polymer is sold in a solvent other than water and neither the state of the polymer itself (solid or not) nor the solubility in water is known.

If the polymer is solubilised in the solvent when sold, and as a result of solubilisation, the polymer is a liquid, it would be outside the scope of the Restriction.

However, it is important to understand what happens to the polymer in formulation to ensure there are no implications under the Restriction. The further work proposed on analytical methods to determine the physical form of the polymer in formulation will be useful in determining the physical state of the polymer after solubilisation in the solvent.





 Are Acrylates used as rheology modifier derogated under paragraph 5(b)? Example: An Acrylate which is solid as a raw material is given into water at 1%. The resulting pH is 2.5-3 (info from MSDS). If adjusted to pH7 with NaOH, a gel network is formed, and the phase thickens.

If the gel is formed during the manufacture of the formula (meaning at the industrial site) derogation 4a would apply.

If the gel is formed during consumer use, on nails for example, derogation 5b would apply. Prerequisite is, that the gel remains stable when applied.

#### 6. Are coated particles in scope?

Coated particles are in scope if they:

- Forms a continuous surface coating of any thickness on particles
- Contain a solid polymer surface coating, irrespective of thickness, or;
- Contain >1% or a solid polymer

#### 7. How is double Reporting avoided?

The text of the Restriction states it is the responsibility of the first actor in the supply chain to report data to avoid double reporting. The term "actors in the supply chain" not defined in the Restriction. It is however, defined in the text of EU REACH Regulation as:

#### All manufacturers and/or importers and/or downstream users in a supply chain;

If the SPM is manufactured in the EU, then this manufacturer is arguably the first actor in the supply chain. If they were to report all uses, it would require downstream users to report their uses to the manufacturer.

This notion is not totally alien in REACH, as downstream users today are required to notify Process Categories (PROCS), and Environmental Release Categories (ERCS) applicable to their uses to the manufacturer.

However, Paragraphs 11 and 12 state all manufacturers and industrial users must report their release to the environment, and for professional and consumer uses, release to the environment must be estimated by the product manufacturer. More clarification on how this will work in practice is required here.

### 8. Are hydrocarbon waxes in scope if in particle size range?

If in the particle size range for inclusion in the Restriction, the wax would also need to meet the definition of "polymer" and "solid" to be in scope of the Restriction.





#### 9. Are there reporting obligations for products with transition periods?

For SPM used at industrial sites, the first reporting deadline is 31 May 2027.

Reporting for SPM containing products derogated under paragraph 5 starts in 2027. **This applies to products placed on the market for the first time**. This can be interpreted as reporting is only required for "new" products offered the previous year. However, ECHA's intentions are clear – they would like a full overview of what is placed on the market, and therefore it is possible that the legal text will change in the future. The first reporting deadline is 31 May 2027.

#### 10. Are there IFUD obligations under derogation 5(b) for products with transition periods?

Yes, the current view is that the IFUD obligations still apply notwithstanding that during the transition products containing SPM can still be paced on the market without such obligation.

#### 11. Is there a threshold limit in quantity for reporting of SPM?

No. There is no volume threshold limit specified in the Restriction that triggers reporting obligations.

#### 12. How should products containing glitter be treated?

The EU Commission has provided guidance on this question: https://single-marketeconomy.ec.europa.eu/commission-regulation-eu-2023205-restriction-microplastics-intentionallyadded-products\_en

## 13. What are the reporting obligations under Paragraph 11 and 12 if a product is manufactured (e.g. by a third-party manufacturer) outside of the EU?

Under REACh, importing is regarded as placing on the market. Based on this, the first use at an industrial site has the reporting and / or labelling obligations.

If the SPM fall under one of the derogations in paragraph 5 and is imported as part of a finished formulation for use at an industrial site, under paragraph 12, the responsible person placing the product on the market would be responsible for complying with reporting obligations.

# 14.Does a glitter containing peel-off mask (or other SPM containing masks) which must be peeled off after 20 minutes and is usually disposed of in the residual waste fall under 5 b even if residues are to be washed off with water?

Currently, yes.



### Areas for further work

There are some areas of the Restriction that require further consideration for us to develop mutually agreed guidance. These are:

- Test methods to determine the physical state of polymers in particles / suspensions / dispersions / mixtures / solvents other than water
  - Industry to share knowledge and agree on a set of scientifically suitable test methodologies where possible.
- Definition of "natural"
  - Agree common interpretation on what extraction methods are permitted for the extraction of natural polymers
    - Compare wording of the main text of REACH with that of the restriction
- Biodegradability
  - The wording of Appendix 15 paragraph 3 is complex
    - Industry to review and determine exactly what needs to be tested to ensure compliance with the Restriction
    - Particular attention to be given to "The degradation of the test material and the polymer(s) need testing separately" and testing at "in use" conditions
  - Biodegradability testing capacity is limited.
    - Consider the use of read-across as per EU REACH permissions
    - Consider the application of interpolation principles as per EU Detergents Regulation
- Test methods to determine particle size and particle size distribution
  - Industry to share knowledge and agree on a set of scientifically suitable test methodologies where possible for:
    - Solids
    - Solid matter in suspensions
  - Industry to investigate the potential for adopting a particle size distribution cut-off level,
     e.g. nanomaterials. What are the potential pitfalls of adopting such an approach?
- Test methods to demonstrate compliance with Paragraph 4a and 5b derogations
  - Industry to share knowledge and agree methodologies to demonstrate modification of physical properties for the following applications / scenarios
    - Film formers
    - Swellable polymers
    - Others?
- Process for avoiding double reporting
  - Industry to review how double reporting can be avoided when applying derogations given paragraphs 11 and 12 require reporting of the same figures by different actors in the supply chain





### **Appendix 1 – Assessment Template**

This template is designed to record decisions made throughout the SPM assessment process. The final assessment will require input from both the SPM manufacturer and those who use the SPM in the manufacture of other goods. This template is intended to capture all decisions in a single form.

An intuitive assessment template has been developed using the free version of Microsoft Forms. A copy is available from the EFfCI and Cosmetics Europe SharePoint page to be used within companies.





### Appendix 2 – Link to legal text

Please see below link to the official legal text:

https://eur-lex.europa.eu/eli/reg/2023/2055/oj

### **Appendix 3 - Definitions and Abbreviations**

| Descriptor          | Definition  | Source  |
|---------------------|---|---|
| Actor in the supply | All manufacturers and/or importers and/or downstream users in a   | Commission Regulation (EC) 1907/2006                    |
| chain               | supply chain;   | EU REACH<br>Article 3                                   |
| Downstream user     | Any natural or legal person established within the Community,   | Commission Regulation (EC) 1907/2006                    |
|                     | other than the manufacturer or the importer, who uses a   | EU REACH  |
|                     | substance, either on its own or in a mixture, in the course of his  | Article 3   |
|                     | industrial or professional activities. A distributor or a consumer is   | Based on definition of "Downstream user"                |
|                     | not a downstream user. A re-importer exempted pursuant to<br>Article 2(7)(c) shall be regarded as a downstream user |   |
| Gas                 | A substance or mixture which at 50 °C has a vapour pressure   | Commission Regulation (EU) 2023/2055                    |
|                     | greater than 300 kPa (absolute), or is completely gaseous at 20 °C  | Annex XVII restriction on synthetic polymer             |
|                     | at a standard pressure of 101,3 kPa;  | microparticles under EU REACH                           |
|                     |   | Annex: Paragraph 2(c)                                   |
| Instructions for    | Any natural or legal person established within the Community,   | Commission Regulation (EC) 1907/2006                    |
| use and disposal    | other than the manufacturer or the importer, who uses a   | EU REACH  |
|                     | substance, either on its own or in a mixture, in the course of his  | Article 3   |
|                     | industrial or professional activities. A distributor or a consumer is   | Based on definition of "substances occurring in nature" |
|                     | not a downstream user. A re-importer exempted pursuant to   |   |
|                     | Article 2(7)(c) shall be regarded as a downstream user  |   |
| Liquid              | A substance or mixture that meets any of the following conditions:  | Commission Regulation (EU) 2023/2055                    |
|                     | (i) the substance or mixture at 50 °C has a vapour pressure of not  | Annex XVII restriction on synthetic polymer             |
|                     | more than 300 kPa, is not completely gaseous at 20 °C and at a  | microparticles under EU REACH                           |
|                     | standard pressure of 101,3 kPa, and has a melting point or  | Annex: Paragraph 2(d)                                   |
|                     | initial melting point of 20 °C or less at a standard pressure of  |   |
|                     | 101,3 kPa;<br>(ii) the substance or mixture fulfils the criteria in the American                                    |   |
|                     | Society for Testing and Materials (ASTM) D 4359-90 Standard   |   |
|                     | Test Method for Determining Whether a Material Is a Liquid or   |   |
|                     | a Solid;  |   |
|                     | (iii) the substance or mixture passes the fluidity test   |   |
|                     | (penetrometer test) described in chapter 2.3.4 of Part 2 of   |   |
|                     | Annex A to the European Agreement concerning the  |   |

|                 | International Carriage of Dangerous Goods by Road (ADR) concluded at Geneva on 30 September 1957;   |  |
|-----------------|---|--|
| Make-up product | Any substance or mixture intended to be placed in contact with<br>specific external parts of the human body, namely the epidermis,<br>eye brows and eye lashes, with a view to, exclusively or mainly,<br>changing their appearance;  | <b>Commission Regulation (EU) 2023/2055</b><br>Annex XVII restriction on synthetic polymer<br>microparticles under EU REACH<br>Annex: Paragraph 2(e) |
| Microbead       | Synthetic polymer microparticles for use as an abrasive, i.e.<br>namely to exfoliate, polish or clean, mainly used in rinse-off<br>cosmetic products or detergents  | <b>Commission Regulation (EU) 2023/2055</b><br>Annex XVII restriction on synthetic polymer<br>microparticles under EU REACH<br>Paragraph 21          |
| Nanomaterial    | <ul> <li>A natural, incidental or manufactured material consisting of solid particles that are present, either on their own or as identifiable constituent particles in aggregates or agglomerates, and where 50 % or more of these particles in the number-based size distribution fulfil at least one of the following conditions:</li> <li>(a) one or more external dimensions of the particle are in the size range 1 nm to 100 nm;</li> <li>(b) the particle has an elongated shape, such as a rod, fibre or tube, where two external dimensions are smaller than 1 nm and the other dimension is larger than 100 nm;</li> <li>(c) the particle has a plate-like shape, where one external dimensions are larger than 100 nm. In the determination of the particle numberbased size distribution, particles with at least two orthogonal external dimensions larger than 100 µm need not be considered.</li> <li>However, a material with a specific surface area by volume of &lt; 6 m2 /cm3 shall not be considered a nanomaterial.</li> </ul> | Commission Recommendation (2022/C 229/01)<br>10 June 2022 - the definition of nanomaterial   |
|                 | <ul> <li>(a)'particle' means a minute piece of matter with defined physical boundaries; single molecules are not considered 'particles';</li> <li>(b) 'aggregate' means a particle comprising of strongly bound or fused particles;</li> </ul>  |  |

|                            | (c) 'agglomerate' means a collection of weakly bound particles or<br>aggregates where the resulting external surface area is similar to<br>the sum of the surface areas of the individual components.  |  |
|----------------------------|--|--|
| Natural polymer            | 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 and not chemically modified substances  | <b>Commission Regulation (EU) 2023/2055</b><br>Annex XVII restriction on synthetic polymer<br>microparticles under EU REACH<br>Annex: Entry 78       |
| Natural                    | A naturally occurring substance as such, unprocessed or<br>processed only by manual, mechanical or gravitational means, by<br>dissolution in water, by flotation, by extraction with water, by<br>steam distillation or by heating solely to remove water, or which is<br>extracted from air by any means  | Commission Regulation (EC) 1907/2006<br>EU REACH<br>Article 3<br>Based on definition of "substances occurring in nature"                             |
| Not chemically<br>modified | A substance whose chemical structure remains unchanged, even if<br>it has undergone a chemical process or treatment, or a physical<br>mineralogical transformation, for instance to remove impurities  | Commission Regulation (EC) 1907/2006<br>EU REACH<br>Article 3<br>Based on definition of "not chemically modified<br>substance"                       |
| Particle                   | A minute piece of matter, other than single molecules, with defined physical boundaries  | <b>Commission Regulation (EU) 2023/2055</b><br>Annex XVII restriction on synthetic polymer<br>microparticles under EU REACH<br>Annex: Paragraph 2(a) |
| Placing on the market      | means supplying or making available, whether in return for<br>payment or free of charge, to a third party. Import shall be deemed<br>to be placing on the market;  | <b>Commission Regulation (EC) 1907/2006</b><br>EU REACH<br>Article 3<br>Based on definition of "placing on the market"                               |
| Polymer                    | <ul> <li>A substance consisting of molecules characterised by the sequence of one or more types of monomer units. Such molecules must be distributed over a range of molecular weights wherein differences in the molecular weight are primarily attributable to differences in the number of monomer units. A polymer comprises the following:</li> <li>(a) a simple weight majority of molecules containing at least three monomer units which are covalently bound to at least one other monomer unit or other reactant;</li> </ul> | <b>Commission Regulation (EC) 1907/2006</b><br>EU REACH<br>Article 3<br>Based on definition of "Polymer"   |

|                                    | <ul><li>(b) less than a simple weight majority of molecules of the same molecular weight.</li><li>In the context of this definition a 'monomer unit' means the reacted form of a monomer substance in a polymer;</li></ul>  |  |
|------------------------------------|---|--|
| Solid                              | A substance or mixture other than a liquid or gas   | <b>Commission Regulation (EU) 2023/2055</b><br>Annex XVII restriction on synthetic polymer<br>microparticles under EU REACH<br>Annex: Paragraph 2(e) |
| Synthetic Polymer<br>Microparticle | <ul> <li>Polymers that are solid and which fulfil both of the following conditions:</li> <li>(a) are contained in particles and constitute at least 1 % by weight of those particles; or build a continuous surface coating on particles;</li> <li>(b) at least 1 % by weight of the particles referred to in point (a) fulfil either of the following conditions: <ul> <li>(i) all dimensions of the particles are equal to or less than 5 mm;</li> <li>(ii) the length of the particles is equal to or less than 15 mm and their length to diameter ratio is greater than 3.</li> </ul> </li> </ul> | <b>Commission Regulation (EU) 2023/2055</b><br>Annex XVII restriction on synthetic polymer<br>microparticles under EU REACH<br>Annex: Entry 78       |

Abbreviations:

IFUD – Instructions for use and disposal

SPM – Synthetic polymer microparticle