

# MICROPLASTICS AND NANOPLASTICS: ECHA AND EFSA WORKING TO PROTECT THE EU

## BACKGROUND

- The environmental and human health risks posed by micro and nanoplastics have recently been subject to increasing regulatory and scientific scrutiny.
- Micro and nanoplastics (synthetic polymer-containing particles <5mm) can be formed through the wear and tear of larger objects, including synthetic textiles and tyres. They can also be manufactured and intentionally added to products, e.g. cosmetics, fertilisers, detergents, paints. Once released into the environment, they are persistent and may be accumulated by animals, including fish and shellfish, and consequently consumed in food by consumers.
- Both EFSA and ECHA have been actively working in the area of micro and nanoplastics, an excerpt of which is presented here.



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## ECHA ACTIVITIES

### Restriction of intentionally-added microplastics

The EU Plastics Strategy (January 2018), committed ECHA to assess the need for a restriction on the intentional use of microplastics under REACH.

ECHA's assessment (March 2019), concluded that the use of intentionally added microplastics (including nanoplastics) posed a risk to the environment that was not adequately controlled.

ECHA has therefore proposed to prohibit the use of microplastics where their release to the environment is inevitable, and require enhanced product labelling and reporting for other uses. The restriction would enter into effect over a six year period.

The restriction is estimated to reduce emissions of microplastics by ~400 000 tonnes over 20 years at a cost of ~€9.4 billion (NPV).

The proposal is now subject to scrutiny by ECHA's scientific committees. A public consultation is open until 20 September 2019



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## EFSA ACTIVITIES

### Risks to consumers

EFSA has been addressing nanoscience and nanotechnologies in the food chain for some years, producing guidance on risk assessment in 2011, and updating this for human and animal health in 2018 (<http://www.efsa.europa.eu/en/efsajournal/pub/5327>).

Microplastic and nanoplastic particles in food were first flagged as a potential future food safety issue by EFSA's Emerging Risks Exchange Network.

In reaction to this and as a first step towards a future assessment of the potential risks to consumers from microplastics and nanoplastics in food, especially seafood, EFSA reviewed the current state of knowledge in 2016 (<https://www.efsa.europa.eu/en/efsajournal/pub/4501>), concluding that:

- Methods are available for identification and quantification of microplastics in food, but occurrence data are limited; for nanoplastics, no methods or occurrence data in food are available.
- Research on the toxicokinetics and toxicity, including studies on local effects in the gastrointestinal (GI) tract, are needed as is research on the degradation of microplastics and potential formation of nanoplastics in the human GI tract.

Among the authorised food additives in the EU included in Reg 1333/2008 there are substances that may fall under the definition of microplastics.

### PROHIBITION ON 'PLACING ON THE MARKET'

Uses where microplastic releases to the environment are inevitable

### DEROGATED USES

Natural/biodegradable polymers; uses with no releases of microplastics to the environment; uses already regulated under other legislation

### MANDATORY 'LABELLING'

Uses where releases of microplastics can be minimised with improved 'instructions for use' and/or labelling

### MANDATORY 'REPORTING'

Identity, description of use (function), tonnage, releases

## FUTURE ACTIVITIES

The opinions of ECHA's Committees will be used by the European Commission to decide if the proposed restriction on intentionally-added microplastics should be adopted. Given the interest in the topic of microplastics and nanoplastics, EFSA (with the help of EU Sister

Agencies) is planning to host a Scientific Colloquium in spring 2020, with the aim to identify questions relevant for research and risk assessment of this contemporary emerging issue.

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