

PLASTIC PELLETS UNDER REACH: Strengthening requirements to enable effective supply chain legislation

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Key Messages

EU legislation mandating supply chain accreditation is widely accepted as the most effective means of eliminating the second largest source of microplastic pollution in Europe - plastic pellets.¹ To this end, there is a clear and timely need presented by the proposed Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (REACH) restriction on intentional uses of microplastics to put in place measures that would support the development of this legislation. In order to fulfil this opportunity, and for the reasons given below, it is imperative that:

- **Reporting requirements are strengthened** to ensure reliable and verifiable data on tonnage handled and lost;
- **Obligatory visual materials on site and labelling on all pellet packaging and containers** are introduced, clearly denoting environmental impact of pellet spills and the importance of responsible handling;
- **Minimum requirements are needed for information on packaged materials (e.g. dimensions, densities) and related best practices** to allow handlers to implement appropriate measures and protocols that will prevent pellet loss;
- **Transition periods are limited to 12 months** for tightened **reporting** requirements and strengthened **instructions for use and disposal** due to the proven urgency of this issue and ease of this timeframe.

Introduction

In 2019, the European Chemicals Agency (ECHA) proposed a wide-ranging restriction on intentional uses of microplastics under the Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (REACH). Accordingly, pellets, flakes and powders (hereafter collectively referred to as “pellets”) - **responsible for up to 167,431 tonnes of emissions per year²** - are to be subjected to generic reporting requirements and instructions for use and disposal (IFUD) but will lack corresponding restrictions or mitigation measures that will reduce losses into the environment.

Pellet pollution is entirely avoidable and should thus be considered the ‘low hanging fruit’ of microplastic pollution. The inclusion of pellets under REACH could be an extremely positive development that could serve to substantiate the hazardous nature of this pollutant and improve availability of recommended handling information

to suppliers and consumers. However, despite being clearly recognised as a significant source of microplastic pollution that justifies immediate action,³ and in the absence of a broader legislative instrument to ensure best practice at supply-chain level with respect to handling and management, **the generic pellet reporting requirements and instructions for use and disposal as drafted will not:**

- provide useful information pertaining to aggregate contributions of pellets to plastic pollution;
- highlight hotspots for pellet pollution;
- support the well-recognised need and development of wider supply chain measures; or
- reduce pellet losses by any meaningful degree.

1. Eunomia for DG Environment of the European Commission (2018), “Investigating options for reducing releases in the aquatic environment of microplastics emitted by (but not intentionally added in) products”, 23 February 2018. Available [here](#).

2. Ibid.

3. Compiled RAC and SEAC Opinions, Final Version, 11 June 2020, p.116, paragraph 2. Available [here](#).

Reporting

As drafted, the reporting requirements are currently too weak to generate reliable or verifiable data on quantities of material handled and lost. Simple improvements will allow for effective monitoring and reporting, supporting the uptake of best handling practices across the industry.

The overarching aim of REACH reporting requirements is to improve the granularity of the dataset on pre-production pellet losses, understanding in more detail exactly where in the supply chain losses are ongoing, in line with the commitments of the European Plastic Strategy.⁴

To achieve this, the following requirements should become mandatory for all actors across the pellet supply chain, including but not limited to those producing, transforming, handling, transporting and managing plastic pellet operations:

Limitation in ECHA Proposal	Justification	Recommended action to improve REACH reporting requirements
<p>Removal of the obligation to report on metric tonnage handled</p>	<p>This information is crucial for understanding the flow of materials in the supply chain; without it, efforts to “enhance the availability of information on microplastics in industrial supply chains”⁵ and verify the accuracy of estimated losses become impossible. The argument that this is “to avoid double counting”⁶ does not apply to pellets, as each time pellets are handled there is potential for loss, and confidentiality concerns can be addressed through anonymising companies and/or banded categorisation of tonnage handled. Furthermore, as distributors are not classed as ‘downstream users’ under the REACH definition, they are entirely omitted from the reporting requirement, which would result in significant data gaps and underreporting of loss.⁷</p>	<p>Include data on metric tonnage handled per site, per annum, for all actors across the supply-chain, including distributors.</p>
<p>Lack of minimum requirements for methodology to monitor loss</p>	<p>Methodologies to estimate pellet loss are varied, contain significant discrepancies, and do not account for how risk mitigation measures relate to reductions in loss. In its proposal, ECHA did not include minimum requirements for a methodology to calculate loss, or a mandatory compliance mechanism to monitor loss,⁸ based on best practice, to ensure each company has adequate and effective methods for calculating emissions. Such requirements are instrumental in allowing authorities to get an accurate picture of pellet pollution and its pathways, and to generate comparable data across the supply chain. It would also be useful to monitor progress and adapt measures to be adopted under the stand-alone legislation required to eliminate loss.</p>	<p>Provide minimum requirements for the methodology to estimate loss, including details on large scale incidents as well as emission estimates.</p> <p>Periodic monitoring and verification of loss estimates to ensure accuracy and accountability.</p>
<p>Entry into force postponed to 36 months</p>	<p>It is unjustifiable to postpone the entry into force to 36 months. In the unique context of pellets, SEAC acknowledged in its final opinion that reporting can be done in a cost-effective manner in 12 months⁹ and many companies are already voluntarily monitoring and reporting on spills, e.g. through OCS Blue.¹⁰ Concerns relating to costs and administrative burden of the shorter timeframe were expressed by unrelated sectors.</p>	<p>Entry into force should be no longer than 12 months.</p>

4. European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and social Committee and the Committee of Regions: A Strategy for Plastics in a Circular Economy (Brussels, 16 January 2018), COM(2018) 28 final.
 5. Compiled RAC and SEAC Opinions, Final Version, 11 June 2020, p.25. Available [here](#).
 6. Ibid. p.25, p.99, p.140.
 7. Background Document to the Opinion on the Annex XV report proposing restrictions on intentionally added microplastics, Final Version, 10th December 2020. p.171. Available [here](#).
 8. Eunomia for DG Environment of the European Commission (2018), “Investigating options for reducing releases in the aquatic environment of microplastics emitted by (but not intentionally added in) products”, 23 February 2018. Available [here](#).
 9. Compiled RAC and SEAC Opinions, Final Version, 11 June 2020, p.11. Available [here](#).
 10. See: Operation Clean Sweep Pledge. Available [here](#). Data reported annually includes the number and volume of incidents of any unrecovered release of plastic pellets, flakes, powders, or granules, within the physical custody of a member company, from containment to ground or water outside member-operated facilities and estimated to be greater than 0.5 litres or 0.5 kilograms per incident.

Instructions for Use and Disposal

As highlighted by the Risk Assessment Committee,¹¹ IFUD should be complementary to wider measures aimed at preventing pellet loss across the plastic pellet supply chain. Clear, well-designed labels on pellet packaging and containers coupled with visual materials on site would serve to reinforce parallel measures improving industry-wide awareness of the need for responsible pellet handling.

The intention of the instructions for use and disposal (IFUD) is to “facilitate the minimisation of release of microplastics to the environment”¹² by ensuring either labels, Safety Data Sheet (SDS), instructions for use (IFU) or package leaflets provide “relevant instructions for use to avoid releases of microplastic to the environment.”¹³

To achieve this, we recommend the following requirements become mandatory for all actors across the pellet supply chain, including but not limited to those producing, transforming, handling, transporting and managing plastic pellet operations:

ECHA Proposal Limitation	Justification	Recommended action to improve REACH IFUD requirements:
<p>No obligation to label pellets as posing a risk to the environment</p>	<p>ECHA’s detailed hazard assessment points very clearly towards an unacceptable risk associated with pellet loss.^{14,15} For this reason, IFUD intends to “improve knowledge by making the reader aware of the hazard, consequences and how to avoid the hazard,”¹⁶ yet no such specificity is forthcoming in the restriction proposal. A broader labelling requirement informing users that the substance contains microplastics and hazardous substances was omitted due to uncertainty on cost and its potential negative influence on demand for microplastic-containing products.¹⁷ These justifications do not apply to pellets, because: (i) buyers are already aware that pellets are microplastics, (ii) pellets are not subject to the same market pressures as other intentionally-added microplastics, and (iii) most of the responsibility for labelling would effectively lie with producers (almost always large multinational corporations) that should have reasonable capacity for implementation.</p>	<p>Obligate the display of visual materials (e.g. signs, posters) on site and direct labelling on pellet packaging and containers to clearly denote risk of environmental impact of spills and need for responsible handling. This can be achieved using a pictogram and warning message, e.g: “Environmental risk - contains microplastics. Handle with care.”¹⁸</p>

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11. Compiled RAC and SEAC Opinions, Final Version, 11 June 2020. Available [here](#).
 12. Background Document to the Opinion on the Annex XV report proposing restrictions on intentionally added microplastics, Final Version, 10th December 2020. p.98. Available [here](#).
 13. Ibid. p.86.
 14. N.B. ECHA’s detailed hazard assessment points very clearly towards an unacceptable risk. The RAC concluded that there is sufficient evidence that “microplastics constitute an intrinsic hazard because of their long-term persistence in the environment.” The “arguably permanent” and “extreme” persistence of microplastics in the environment, coupled with a predicted increase of their concentration in ecosystems over time, means any release could result in adverse effects that will be difficult to reverse in the future, including on human health. That is the reason why ECHA chose to consider microplastic emissions as a “proxy for risk” meaning any release can be assumed to result in harm.
 15. Compiled RAC and SEAC Opinions, Final Version, 11 June 2020, p.71. Available [here](#).
 16. Background Document to the Opinion on the Annex XV report proposing restrictions on intentionally added microplastics, Final Version, 10th December 2020. p.102. Available [here](#).
 17. Annex XV Restriction Report: Proposal for a Restriction, p.91. Available [here](#).
 18. N.B. Both ECHA and industry players have reiterated that pictograms are a successful means of communicating risk messages which is important in this context given the wide range of actors and languages involved in the plastic supply chain.

ECHA Proposal Limitation	Justification	Recommended action to improve REACH IFUD requirements:
Lack of minimum requirements for information required to avoid releases of pellets to the environment	In order to “facilitate the minimisation of release of microplastics to the environment,” ¹⁹ the minimum requirements for information on packaged materials (e.g. dimensions, densities) and best practices should be outlined . The IFUD requirement should ensure that instructions are clear, effective and include mitigation measures to recover spilt pellets and prevent loss to the environment. Where necessary, information should be tailored to specific materials, operations and processes at all stages of the supply chain.	Include minimum requirements for information on packaged materials (e.g. dimensions, densities) and related best practices to allow handlers to implement appropriate measures and protocols that will prevent pellet loss during handling, transport and storage of pellets. This should include, but not be limited to: staff training, handling protocols, regular controls and emergency mitigation measures.
Entry into force postponed to 24 months	The 24 month transition period is unnecessary and unjustifiable. Temporary labels could be created on a very short turnover (e.g. adding stickers to packaging or providing a digital / temporary leaflet) providing important information to downstream users as quickly as possible.	Entry into force should be no longer than 12 months .

Towards Supply Chain Certification

A substantial and growing body of evidence demonstrates that a mandatory supply-chain accreditation approach, incorporating certification and chain of custody to verify best practice handling and management, is the most efficient and cost-effective means to minimise this considerable source of microplastic pollution.²⁰

While reporting and IFUD requirements alone are insufficient to reduce pellet loss, they nevertheless could inform and support a mandatory supply-accreditation approach if strengthened with this framework in mind.

In line with the European Union’s (EU) environmental and public health commitments, EU legislation mandating supply chain accreditation for pellets is the only way to capture all actors and fully eliminate potential for pellet loss across the plastic supply chain.²¹

19. Compiled RAC and SEAC Opinions, Final Version, 11 June 2020, p.19. Available [here](#).

20. Eunomia for DG Environment of the European Commission (2018), “Investigating options for reducing releases in the aquatic environment of microplastics emitted by (but not intentionally added in) products”, 23 February 2018, p.72-75. Available [here](#).

21. EIA, Fidra, FFI, Rethink Plastic alliance (2019). Our Ocean needs actions not promises. Available [here](#).

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Rethink Plastic, part of the Break Free From Plastic movement, is an alliance of leading European NGOs working towards ambitious EU policies on plastics. It brings together the Center for International Environmental Law (CIEL), ClientEarth, Environmental Investigation Agency (EIA), European Environmental Bureau (EEB), European Environmental Citizen's Organisation for Standardisation (ECOS), Greenpeace, Seas At Risk, Surfrider Foundation Europe, and Zero Waste Europe. Together they represent thousands of active groups, supporters and citizens in every EU Member State working towards a future free from plastic pollution.

