

Bioplastic Feedstock Alliance Statement on Oxo-degradable Additives

The Bioplastic Feedstock Alliance is a precompetitive, multi-stakeholder forum focused on advancing knowledge on the environmental and social performance of feedstock sources for bio-based plastics. The BFA members are committed to using informed science and critical thinking to help guide the responsible development of feedstocks for biobased plastics, to encourage a more sustainable flow of materials and create lasting value for present and future generations. To achieve these goals, the scope of the BFA's work is focused on bioplastic feedstocks – the plants and other biomass that serve as the building blocks for plastics.

The BFA recognizes there are other critical concerns relating to the future of materials which do not fall within this scope, including the important issue of plastic and other waste entering the ocean and other ecosystems. Furthermore, oxodegradable additives have controversially been promoted as a silver bullet solution to this problem.

While this topic is not within the scope of the BFA, it is very concerning to the BFA members. Therefore, BFA has taken the step to investigate and align on the issue.

Background on ocean waste:

Increasing amounts of plastic in the world's oceans is often cited as a driver for use of oxo-degradable additives, because of the assumption that plastic with oxo-degradable additives entering the ocean is a preferable option to the status quo. Waste in the ocean is an urgent issue that can impact the health of ocean ecosystems, the integrity of food supplies, and the livelihoods of local people. Further information on the magnitude, sources, and drivers of ocean waste can be found in the following publications:

- Jambeck et. al. – [Plastic Waste Inputs from Land into the Ocean](#)
- Trash Free Seas Alliance – [Stemming the Tide](#)

The BFA supports the following organizations and positions regarding the issues of material recovery and oxodegradable additives:

- Regarding **material recovery**, and the role it has in reaching a future where the needs of earth's population can be met without depleting our natural resources, the BFA supports [The Cascading Materials Vision](#).

The approach of the Cascading Materials Vision is consistent with BFA's approach and view of how bioplastics fit within the larger context of a sustainable future. The BFA recognizes that while responsibly sourced biobased materials fill a critical role, a wider scope of change is needed in order to create a system where nature and people can both thrive – including building in better materials recovery and circularity. See more about how circularity and the bioeconomy are linked on our [website](#).

- **Oxodegradable additives** are substances added to conventional plastics with the intention of promoting oxidation. Oxidation brittles and fragments the material, with the intention of making the fragments digestible by microorganisms.

These additives have recently been promoted as a solution to marine and terrestrial pollution. However, there is no credible evidence that adding oxo-degradable additives to plastic results in environmentally advantageous outcomes. Conversely, there are serious concerns about these additives because they may cause fragmentation into microplastics and there is no evidence that they fully degrade in marine or terrestrial environments [1], [2]. Additionally, the BFA agrees with the position of the Ellen MacArthur Foundation and the 150+ organizations who joined with them that Oxo-degradable plastic is not consistent with circular systems, and is not a solution to any type of pollution [3].

It is the BFA's view that material innovation should be grounded in sound science supported by evidence-based claims. Therefore, the BFA is supportive of strong policies that enforce the credibility of claims, as they are needed to ensure a high standard is consistently applied.

References

- [1] "REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on the impact of the use of oxo-degradable plastic, including oxo-degradable plastic carrier bags, on the environment," European Commission, Brussels, Belgium, Jan. 2018.
- [2] "A European Strategy for Plastics in a Circular Economy," European Commission, Jan. 2018.
- [3] "OXO-DEGRADABLE PLASTIC PACKAGING IS NOT A SOLUTION TO PLASTIC POLLUTION, AND DOES NOT FIT IN A CIRCULAR ECONOMY," Ellen MacArthur Foundation.