

4th June 2020

Rt. Hon. George Eustice MP,
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Dear Secretary of State,

OXO BIODEGRADABLE PLASTICS

We are a British SME, and are grateful for the understanding and support of The Rt. Hon. Oliver Dowden MP. We are listed on the London Stock Exchange and have been awarded their Green Economy Mark in recognition of our global contribution to the protection of the environment. We are at a critical time in our effort to expand our UK workforce as we drive our exports and foreign currency earnings materially higher.

We are committed to improving plastics so that they can protect people and their food from contamination, and so that if they escape into the open environment they will degrade and biodegrade much more quickly than ordinary plastic.

We have seen the letter addressed to you on 1st June by the BBIA, and we wish to respond as follows. Our response is in square brackets following each BBIA statement.

We the undersigned associations call upon the Government to implement a total ban on the use, sale and distribution in the UK of conventional non-biodegradable plastics containing additives, which are meant to accelerate the fragmentation of plastics into microplastics. Such plastics are variously known as “oxo degradable”, “oxo biodegradable” “oxo fragmentable” “bio-assimilable” but the definitions are not exhaustive.¹

[The definitions are to be found in CEN TR15351. The BBIA has the word British in its name but it is the UK trade association for the bio-based plastics industry, which comprises predominantly German and Italian companies, and it is important to ask why they have assembled this consortium against

¹ We refer to any plastics to which additives are put in the master batches which disintegrate plastics into fragments and microplastics and which are not certified as “biodegradable” under the standards recognised within UK law such as BSI 13432, BSI 14995, BSI 17033. [The Danish Maritime and Commercial Court has ruled on 11th November 2019 that it is deceptive to describe plastic tested to these standards as biodegradable, because they are not biodegradable except in the special conditions found in an industrial composting facility. Oxo-biodegradable plastics are certified according to ASTM D6954].

oxo-biodegradable plastic. This needs to be understood as part of a concerted lobbying and PR campaign over nearly 20 years by the bio-based plastics industry, upon which they must by now have spent millions of Euros.

They are obviously not spending this money and making all this effort to protect the environment – they are doing it because they (mistakenly) see oxo-biodegradable plastic as a threat to their market share. Their actions are fundamentally anti-competitive, and are designed to stifle a competing technology. Worse still - if they succeed they will have deprived policymakers of a technology which could be used to deal with plastic which has escaped into the open environment, from which it cannot be collected for recycling, composting, or anything else.]

The UK voted for the European Single Use Plastics Directive (Directive 2019/904 <https://eurlex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019L0904&from=EN>) which includes the clause at Article 5 that “Member States shall prohibit the placing on the market of the single-use plastic products listed in Part B of the Annex and of products made from oxo-degradable plastic.”

[There is a procedure, set out in the REACH Regulation, designed to prevent arbitrary and commercially or politically motivated action, which must be complied with before any substance can be banned in the EU. Article 5 is the result of lobbying in Brussels by the German and Italian bio-based plastic companies, which has led the EU to ignore its own rules and to deprive citizens of their right to conduct a lawful business without due process.

The Commission commenced this procedure by asking the European Chemicals Agency [ECHA] to investigate on the basis that oxo-biodegradable plastic (which they called oxo-degradable plastic) creates microplastics. Ten months into the study ECHA declared that they were not convinced that microplastics are formed. Thereupon the Commission terminated the ECHA enquiry and the Parliament and Council imposed a ban without any scientific dossier from ECHA. They thereby deprived the oxo-biodegradable industry of all the safeguards against arbitrary conduct which REACH provides, including a review by two committees and a public consultation. This is the European Union at its worst, and what they have done is unconstitutional.]

Whilst the UK has left the EU we have retained the ambition to achieve at least the equivalent of European environmental norms. [but we no longer have to implement arbitrary laws enacted in breach of the EU’s fundamental norms, and without any justification from their own scientific experts]

At the same time, were the UK to allow these plastics, anything containing them or packaged in them could not be exported to EU markets. [Correct, unless the Directive is declared invalid by the EU courts before it comes into force in 2021, as it could well be, but that is no reason for banning them in the UK. By contrast no plastics, or anything containing them or packaged in them could be exported to countries in the Middle-East and Asia where oxo-biodegradable plastic is mandatory]

The ban on the use of oxo additives regards not just the EU. The USA also has effectively stopped the sale of such additives by adjudging that the use of marketing terms such as biodegradable for plastics using these additives is considered misleading. [This is not correct. California restricts the use of the

term “biodegradable” in advertising, but oxo-biodegradable plastics are not banned in California or any other State, and are widely used in the USA].

*Companies have been fined for using such terms and as a result these additives are not used in the USA.*² [The case cited was decided by an unofficial body called the National Business Bureau, which has no power to impose fines, and conducted no in-depth examination of oxo-biodegradable technology. It made recommendations about the words that advertisers should use, but it is not correct to say that a result of these recommendations these additives are not used in the USA. They are used in the USA, and for example The New York Times continues to wrap its newspapers in d2w oxo-biodegradable plastic].

Why should this ban be implemented now? As the UK is now in the process of revising legislation on the use of plastic packaging, now is the time to act. [Now is the time to declare that the SUP Directive will not be implemented insofar as it relates to oxo-biodegradable plastic].

Overwhelming scientific evidence, including research commissioned by DEFRA³ and the EU, has demonstrated beyond doubt that claims that prodegradant additives transform polyolefin plastics into biodegradable plastics are unfounded. [This is not correct. It is well understood that prodegradant additives do accelerate the reduction of molecular-weight so as to transform polyolefin plastics into biodegradable plastics. Today the disagreement is only about rate and extent, though nobody doubts that oxo-biodegradable plastic will become biodegradable much more quickly than ordinary plastic in the open environment with access to oxygen. There is therefore no “overwhelming evidence” that these claims are unfounded].

An independent review of the scientific evidence conducted by Peter Susman QC in 2019⁴ at the request of Symphony Environmental concluded that:

- oxo-biodegradable technology does facilitate the ultimate biodegradation of plastics in air or seawater by bacteria, fungi or algae, within a reasonable time, so as to cause the plastic to cease to exist as such, far sooner than ordinary plastics, without causing any toxicity; and
- the benefit is obvious of reducing future contributions to the scourge of plastic pollution of land and sea”

See also the paper published subsequently by Queen Mary University London⁵]

It is scientifically well-known that all polyolefin plastics are naturally prone to oxidation under environmental conditions (aging). Such oxidation ultimately leads to fragmentation and formation of microplastics, which build up in oceans and in soil. [Correct – and this is why oxo-biodegradable

² <https://www.khlaw.com/2313>

³ <http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16263>

⁴ <https://www.biodeg.org/uk-judge-find-the-case-for-oxo-biodegradable-plastic-proven/>

⁵ <https://www.biodeg.org/wp-content/uploads/2020/02/published-report-11.2.20.pdf>

technology was invented, and why it is no longer acceptable to continue to use ordinary plastic for everyday plastic products.]

The "oxo-additives" are designed to accelerate the natural oxidation of polyolefins, causing an early fragmentation and the fragmentation of plastic products into microplastics. Thus the effect of these additives (if any) is merely to accelerate the conversion of macroplastics into microplastics, not solving the global problem of plastic pollution but worsening it. [This misses the fundamental point about oxo-biodegradable plastics – explained by Professor Ignacy Jakubowicz⁶ as follows in his reply to the Ellen MacArthur Foundation:

"The degradation process is not only a fragmentation, but is an entire change of the material from a high molecular weight polymer, to monomeric and oligomeric fragments, and from hydrocarbon molecules to oxygen-containing molecules which can be bioassimilated."]

Even the claimed disintegration effectiveness is questionable, under some environmental conditions. Experiments undertaken by the University of Plymouth⁷ in 2019 showed that plastic films claiming to be "degradable" due to the oxo additives in them, remained intact in the sea and in soil after 3 years. [They exposed the bags in the open air in Plymouth, and found that Symphony's product lost strength at a significantly faster rate than the other bags - between 0–9 months (p = < 0.01).

Indeed they found that this product had the greatest loss in tensile-strength over 27 months for all environments in which bags were tested. Conventional plastic had the least reduction in tensile strength. They also tested the bags in conditions in which a slower rate of degradation would be expected⁸]

The UK Advertising Standards Authority in 2019 also found that the use of the term "biodegradable" for dog poop bags made from oxo plastics were misleading as after 2 years these bags were still undegraded.⁹ Nevertheless, they are still sold in the UK. [The ASA did not say that after two years the bags were still undegraded. Nor did they rule that the bags would not biodegrade significantly faster than a conventional plastic bag in the open environment. They initially ruled that consumers would expect them to degrade in the open environment, but then changed their mind and said that consumers would expect them to degrade in a landfill. They are not however advertised as degradable in landfill (although they will do so where oxygen is present).]

Moreover, such plastics are not recyclable as the powders contained in them assist degradation and therefore render instable plastic polymers when recycled together. [This is not correct.¹⁰ We have supplied 200,000 tons of oxo-biodegradable plastic in more than 90 countries and a high percentage is being recycled, with no difficulties encountered. However, the type of plastic promoted by the

⁶<http://www.biodeg.org/Reply%20to%20Ellen%20MacArthur%20Foundation%20from%20Prof%20Ignacy%20Jakubowicz%20-%202021-8-17.pdf>

⁷ <https://www.plymouth.ac.uk/news/biodegradable-bags-can-hold-a-full-load-of-shopping-three-years-afterbeing-discarded-in-the-environment>

⁸ <https://www.biodeg.org/wp-content/uploads/2019/11/opa-comments-on-plymouth-10.pdf>

⁹ <https://www.asa.org.uk/rulings/ancol-pet-products-ltd.html>

¹⁰ <https://www.biodeg.org/recycling-and-waste/>

BBIA will certainly compromise a normal recycling scheme, but they are not calling for it to be banned.]

These plastics are also not compostable and lead to confusion among consumers and retailers who consider them to be biodegradable as if they were compostable. [They are not marketed as compostable, and even if a plastic is not compostable that is no reason to ban it. Almost all plastics in use today are not compostable.

Confusion is actually caused by the BBIA and others continuing to use the misleading term “oxo-degradable” and by marketing plastic as compostable when it does not in fact convert into compost. This is because EN13432 requires it to convert into CO₂ gas within 180 days. Also, the German courts in *Güthoff v Deutsche Umwelthilfe (2014)* have held that it is deceptive to market plastic as “compostable” because it is seldom actually composted.¹¹ It is also confusing to call them biodegradable when the Danish courts (see footnote 1 above) have held that it is deceptive to call them biodegradable, because they are tested according to EN13432 to biodegrade in the special conditions found in an industrial composting unit.]

A very wide coalition of signatories including some of those signing here, led by the Ellen MacArthur Foundation, called for a ban as long ago as 2017 that was reiterated in 2018¹². That is attached. We wish to remind you of the call from the Foundation and reiterate it ourselves here. [The BBIA do not however mention that the Ellen MacArthur Foundation claimed in its 2017 report that oxo-biodegradable plastics simply created microplastics, but after meeting with Symphony Environmental they withdrew that claim and accepted in their 2019 report that they can degrade faster than ordinary plastics and are biodegradable. It is also notable that many of the signatories are bio-based plastics companies from whom EMF has received funding, or lobby organisations (eg BBIA, European Bioplastics, Australasian Bioplastics, and BPI) working on their behalf. Among the others are multinational companies whose products bearing their brand names are found littering the oceans and beaches all over the world, and who need to stop using ordinary plastic.]

Whilst we in the UK are ourselves introducing national bans on single use plastics [This needs to be reconsidered, because COVID-19 has shown that single-use plastic is vital for protecting people and their food from microbial contamination. Instead of being banned, single-use plastic should be made with anti-microbial technology¹³ and should also be made oxo-biodegradable in case it escapes into the open environment.]

Now is the time to also ban the scourge of plastic fragments deriving from oxo additives. We hope you will act quickly to implement this ban in the UK without further delay and respect the undertaking the UK voted for when this issue was raised in the EU. [BBIA have admitted above that the plastic fragments found in the environment are coming from conventional plastics and that they build up over many years in oceans and in soil.

¹¹ See also <https://www.biodeg.org/oregon-composters-dont-want-compostable-packaging/>

¹² <https://www.newplasticseconomy.org/about/publications/oxo-statement>

¹³ See www.d2p.net

Therefore, for that reason, and the reasons given in our responses above, the UK should ban the use of ordinary plastic for everyday plastic products, and legislate to upgrade ordinary plastic with oxo-bio technology, thereby retaining the benefits of plastic in terms of hygiene but minimising the environmental damage caused when ordinary plastics escape into the open environment. Other countries around the world¹⁴ have already taken this progressive approach to managing the balance between the safety of their population and the protection of their environment.

For the reasons given above, the UK should never have voted for Article 5 or Recital 15 of the SUP Directive, and should refuse to introduce them into UK law].

Yours sincerely,

A handwritten signature in black ink, appearing to read "Michael Laurier". The signature is stylized with a large, sweeping initial "M" and a horizontal line extending to the right.

MICHAEL LAURIER
CEO

cc Rt. Hon. Oliver Dowden MP

¹⁴ eg: The UAE, Saudi Arabia, Bahrain, Jordan.