

Definitions and More Setbacks for Plastiphobia

Michael Stephen, an international expert on bioplastics, shares his thoughts and opinion on important issues impacting the bioplastics industry. Today, Michael writes about definitions and setbacks for plastiphobia.



OXO-DEGRADABLE v OXO-BIODEGRADABLE

I am often asked to explain the difference, by people who have read publications referring to “oxo-degradable” plastics.

This is quite easy, because they are in fact ordinary plastics. Nobody makes plastic with additives and sells it as “oxo-degradable”

“Oxo-degradation” is defined by CEN (the European Standards authority) in TR15351 as “degradation identified as resulting from oxidative cleavage of macromolecules.” This describes ordinary plastics, because they abiotically degrade by oxidation in the open environment and create microplastics, but do not become biodegradable except over a very long period of time.

However, the label “oxo-degradable” is often used by the Ellen MacArthur Foundation and others who wish to avoid acknowledging the existence of oxo-biodegradable plastic, even though they admit (in their 2019

Report) that they do become biodegradable.

Oxo-biodegradable plastic does however exist, and “oxo-biodegradation” is defined by CEN as “degradation resulting from oxidative and cell-mediated phenomena, either simultaneously or successively”. This means that the plastic degrades by oxidation until its molecular weight is low enough to be accessible to bacteria and fungi, who then recycle it back into nature. These plastics are tested according to ASTM D6954.

It is time for the use of the description “oxo-degradable” to stop, as it is causing confusion.

MORE SETBACKS FOR PLASTIPHOBIA

On 24th May 2020 The Sunday Times wrote “Coffee shops go cold on reusable cups as the war on plastic stalls” – As coffee chains open up around Britain there is bad news for those who hoped that the throwaway coffee cup had become a thing of the past.”

“The UK government has delayed a ban on plastic straws... Some measures to reduce plastic bag use have also stalled, with the government temporarily waiving the requirement to charge for plastic bags used to deliver online orders. Tesco has temporarily reintroduced them, free of charge.”

Some people think that these measures will be purely temporary – but I’m not so sure. People are now very much alive to the danger of microbial infection, and they will remember for a long time that a single-use plastic bag or package is much less likely to spread disease than the alternatives.

The British Plastics Federation said “Without plastics to help in this crisis, many of the lifesaving measures would not have been possible.”

I agree, but there are two more things the plastics industry could do. First they should make the plastic itself anti-microbial (www.d2p.net) and second they should make it oxo-biodegradable (www.d2w.net) so that if it gets into the open environment as litter it will not lie or float around for decades.

MORE LESSONS FROM CORONAVIRUS

Daily Telegraph 30.5.20 – It wasn’t so long ago that a ministerial boast suggesting that the Government had used more than one billion items of disposable plastic in two months would have been met with horror and disgust. How dare they? Don’t they know it’s killing fish? Didn’t they see “Blue Planet” with the baby albatross?

Coronavirus has taught us that a lot of things we thought were bad might be good and a lot of good things might be bad. Single-use plastic, big pharmaceutical companies ... and vaccines all had a bad name in some circles a few months ago, decried respectively for destroying the oceans, addicting the vulnerable to painkillers, and filling our children with dangerous chemicals.

But the clarion call today is very different.

Michael Stephen

Michael Stephen is a lawyer and was a member of the United Kingdom Parliament, where he served on the Environment Select Committee.

When he left Parliament Symphony Environmental Technologies Plc. attracted his attention because of his interest in the environment.

He is now Deputy Chairman of Symphony, which is listed on the AIM market of the London Stock Exchange, and is the founder and Chairman of the Oxo-biodegradable Plastics Association.

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