

# Oxo-Biodegradable Plastics Association

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## Just the facts please

The news is littered with stories about plastics in the marine environment, so it would be great if the public could have accurate information on which to base an opinion. The article “The False Promise of Biodegradable Plastics” published on 15<sup>th</sup> June on [www.fastcoexist.com](http://www.fastcoexist.com) talks about a recently published UNEP report, which has some glaring anomalies and omissions relating to biodegradable plastics. It is another example of misinformation which muddies the waters and does nothing to help in solving the problem.

The vast majority of plastics in the marine environment are conventional plastics, which can take decades to degrade, so until the happy day when there is no more litter we need to be looking for smarter plastics. For the sake of clarity there are two distinct types of biodegradable plastics. They are:

- A. Bio-based (sometimes called “bioplastics,” “hydro” or “compostable plastics”). These are made from a mixture of oil-based materials and vegetable matter such as starch. They are tested according to international standards EN13432 or ASTM D6400 to biodegrade in the special conditions found in industrial composting facilities, not in the sea.

and

- B. Oxo-biodegradable (or “Controlled-life plastic) - made from polymers such as PE, PP, and PS, containing extra ingredients (which are not heavy-metals) and tested according to ASTM D6954 or BS8472 or AFNOR AC T51-808 to oxidise and then biodegrade in the open environment.

The article mentions biodegradable plastics but has not made the crucial distinction between the two types mentioned above. It says that biodegradable plastic requires certain conditions to biodegrade i.e. temperatures of 50 degrees Celsius, This is true of A but not of B.

When Oxo-biodegradable plastic has oxidised it is no longer a plastic, and its molecular weight is low enough to be bio-assimilated by microorganisms on land and sea. Oxo-biodegradable plastic can be made in existing plastic factories with existing workforce and machinery at little or no extra cost, and if collected, it can be recycled with conventional plastic (<http://www.biodeg.org> ).

The crucial point is that if it escapes collection and ends up in the open environment it will not be around for decades, because it will degrade and biodegrade much more quickly in the same way as a leaf only quicker, leaving no toxic residues or fragments of plastic. It is therefore far less likely to get into the oceans, and if it does it will rapidly become benign.

w. [www.biodeg.org](http://www.biodeg.org) | e. [info@biodeg.org](mailto:info@biodeg.org)

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The complete answer to the problem of plastic waste involves strategies involving consumer education, more rigorous collection, more recycling facilities and stronger penalties for careless disposal, but we also need to be smarter in the type of plastic we use.

It makes sense to use oxo-biodegradable plastic because it offers a practical approach to a serious problem, which can be implemented right now. The truth is that there is nothing currently available to replace plastic that is as strong, flexible, lightweight and waterproof for most applications apart from oxo-biodegradable plastic, which allows us to keep the plastic but deal with the environmental problem.

Several countries in Africa, Asia and the Middle East have already legislated to make oxo-biodegradable plastic mandatory, because it works. It would be really useful if the facts about the technology could be reported accurately and a bit of common sense entered the debate.

**End**

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