



OXO-BIODEGRADABLE PLASTICS ASSOCIATION

Website www.biodeg.org E-mail info@biodeg.org
A not-for-profit Association, limited by Guarantee.
EU reg. no. 186937011291-26



NEW ZEALAND COURT CASE

The Commerce Commission of New Zealand (who were the prosecutors in the case) admitted that the scientific claims made by the supplier in relation to its oxo-biodegradable plastic products were accurate. The court heard expert evidence and made no finding to the contrary. The case was therefore based only on advertising statements made by one NZ trader.

The judge said "Overall there is reasonable use of "oxo-biodegradable" in the brochure and there is reasonable use of it in context taking into account surrounding other descriptions of the process."

Oxo-biodegradation causes the plastic to convert at the end of its useful life in the presence of oxygen into a biodegradable material. It does NOT contain heavy metals and it does NOT leave fragments of plastic in the environment. The fragments found in the oceans, and those found to have been ingested by birds and fish are fragments of ordinary plastic.

It was claimed by the Commission that oxo-biodegradable plastics confer no environmental benefit, but in February 2011 a Life Cycle Assessment¹ by Intertek was published by the UK Environment Agency which shows that oxo-biodegradable plastic bags have a better LCA than paper bags or compostable plastic bags. In May 2012 a further LCA by Intertek² included the litter metric and compared oxo-biodegradable plastic with bio-based plastic and conventional plastic. It put oxo ahead in its potential to reduce the plastic waste problem and its less harmful impact on the environment and on global warming. In its ability to reduce plastic litter, oxo-bio scored 75% better than conventional plastic, and bio-based plastics were worse than oxo in all 11 environmental impact categories.

Oxo-biodegradable plastic is therefore a huge environmental benefit in relation to plastic waste which escapes collection and could otherwise lie or float around in the environment for decades.³ In this respect New Zealand is lagging behind the United Arab Emirates, Pakistan, and other countries with a total population of 195 million people, who have legislated to require their disposable packaging and other plastic products to be made with oxo-biodegradable technology and to prohibit imports of such products made with conventional plastic.

At the trial the Commission focused on three particular issues. These were Landfill, Recycling, and Composting.

LANDFILL

It is true that most of the plastic waste in New Zealand goes to landfill, but when a particular plastic item is made, nobody knows whether it will go to landfill or will escape into the environment, so all the items should be made with oxo-bio technology.

The judge found against the trader under section 10. This is surprising because the trader's website said "The oxo-degradation process is an oxidising system - if no oxygen is present the carbon and hydrogen remains locked in the remnants of the plastic." The trader therefore made it clear that an oxo-biodegradable bag will NOT degrade in the absence of oxygen (that is why it is called "oxo") and did not say that it would degrade deep in landfill if there is no oxygen. In fact, oxo-bio plastic is designed so that it will NOT degrade in landfill and will NOT generate methane (which is a greenhouse gas).

¹ http://degradable.net/files/uploaded/Carrier_Bags_Report_EA.pdf

² [http://www.biodeg.org/files/uploaded/Intertek_Final_Report_15.5.12\(9\).pdf](http://www.biodeg.org/files/uploaded/Intertek_Final_Report_15.5.12(9).pdf)

³ <http://www.biodeg.org/page32.html>

RECYCLING:

The Commission claimed that while an oxo-bio plastic bag could be recycled, will not in fact be recycled in NZ for lack of facilities. The OPA accepts that it is the supplier's responsibility to advise consumer whether the bag CAN be recycled, but a consumer disposing of a bag in any town or village in New Zealand or elsewhere is in a much better position than the supplier is to know whether there are recycling facilities in that place and at that time.

The judge said "the statements on the website are not false," and "Overall, I was not satisfied beyond reasonable doubt that the statements on the website were misleading, in terms of s 13 of the Fair Trading Act."

COMPOSTING

However, he found against the supplier under section 10 on the (unreasonable) basis that industrial composting for plastics was not available in New Zealand. As we have said, it is surely not a national or international trader's responsibility to prevent consumers from misleading themselves as to whether there are collection facilities for composting in their own neighbourhood at a particular time.

BIODEGRADABILITY AND TIMESCALE

Oxo-biodegradation of polymer material has been studied in depth at the Technical Research Institute of Sweden and the Swedish University of Agricultural Sciences. A peer-reviewed report of the work was published in Vol 96 of the journal of Polymer Degradation & Stability (2011) at page 919-928. It shows 91% biodegradation in a soil environment within 24 months, when tested in accordance with ISO 17556.

It was said in court on the basis of an opinion-poll that NZ consumers believe that something labelled "biodegradable" will somehow disappear into nothing within a year, regardless of its location." However, less than half of the respondents said so, and almost as many believed that it would take more than a year.

The trader's website was quite clear about it. The website said that "oxo-biodegradable plastics can be engineered to start to degrade in as little as 60 days or as long as 5-6 years depending on the requirements of the product." ... "the actual speed of degradation will be affected by the levels of heat light and stress to which it is subjected." There was even a section on the website headed "With what level of certainty can the timing of degradation be controlled?"

These are qualified statements as to timescale, not an unqualified claim which would allow a consumer to mislead himself into thinking that the product "will somehow disappear into nothing within a year." Having regard to the fact that conventional plastics can lie or float around for decades it is perfectly true that oxo-biodegradable plastics are "here today and gone tomorrow" as the trader said. No sensible person would take that slogan literally, otherwise the plastic product would have no service life and would be useless.

CONCLUSION

The fine imposed on EcoPal was manifestly unjust, and would have been appealed were it not for the legal fees involved.

FOR FURTHER INFORMATION contact: info@biodeg.org

FOR OXO-BIODEGRADABLE PLASTIC GENERALLY see www.biodeg.org

© OPA 18th December 2013