



## **The Oxo-degradation Process**

The process of degradation is a two-step process beginning with the oxo-degradable additive. Long complex carbon-hydrogen chains provide plastic with its renowned strength and longevity. In nature it is estimated that these chains could take hundreds of years to break down (if they break down at all).

The additive acts as a catalyst and accelerates the natural process of degradation. By breaking down the long carbon-hydrogen bonds and reducing the plastic's molecular weight, the molecules become 'wetable' and able to sustain a biofilm on the surface supporting microorganisms.

In phase two of the process, microbes are able to consume the molecules and reduce the plastic into water, carbon dioxide, and reusable biomass. This process is non-toxic and 100% safe for direct food contact.

This is an oxidizing system. If oxygen is not present, the carbon-hydrogen chains will remain locked in the remnants of the plastic. This proves an advantage over biodegradable alternatives, which will continue degradation without the presence of oxygen and emit methane gas. The oxo-degradation process using the ADDIFLEX ADDITIVE guarantees a 10-15% remaining biomass at the end of 5 years along with carbon dioxide and water.