

# Does MHG Biodegradable Plastic PHA Meet the Nirvana Standard of Green?

## The Six Levels of Biodegradable vs. The Seven Levels of Recyclable

By Laura Mauney

'Greenwashing' is an unforgiving label generally assigned to practices and products that are marketed as "environmentally correct," but which, when examined closely, are not.

A simple example of greenwashing is an office that brags on the fact that it collects cans and plastic bottles from backroom vending machines to recycle for cash, but stocks cheap, disposable, plastic dishware and flatware in the break room.

According to sustainability expert and filmmaker Veronica Miles, who's helped strategize and implement green waste management measures with the New York City Department of Sanitation, EcoSet Consulting, and Crown Disposal, greenwashing can also be defined as "... a company selling products they call 'green' to appeal to a marketing trend, or just to make money because they know consumers respond to the word 'green' and often look for products associated with that word."

### Is Recycling a form of Greenwashing?

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Says Miles, "The greenwashing term I dislike the most is '100% Recyclable,' often written next to a recycling logo. Whether or not something is 'recyclable' isn't about what the product is made of, but depends on how the product is handled after it is used and what facility it goes to. When consumers see the recycling logo, they think 'green,' so they are being fooled by a blanket statement that could be applied to anything."

For several decades, however, recycling has served as "THE" green solution to the problem of plastic trash overflow in the bins of the world. Housekeeping habits have been adapted to recycling. Waste management companies have modified processes to meet the demand. New manufacturing practices have erupted.

In most municipal scenarios, consumers are required to pre-sort recyclables from other trash. Waste management companies are then required to separate plastic recyclables by one of the [seven resin codes](http://www.nrdc.org/living/shoppingwise/food-storage-containers.asp) (http://www.nrdc.org/living/shoppingwise/food-storage-containers.asp) used to classify plastic compounds since 1988.

Despite all the effort, and though recycling plastic is far better than tossing it into a ditch, waterway or landfill, the impact of recycling remains low. According to the [Environmental Protection Agency \(EPA\)](#)





(<http://www.epa.gov/osw/consERVE/materials/plastics.htm>), “only 9 percent of the total plastic waste generated in 2012 was recovered for recycling.”

Says Miles: “Although it’s a dream for all humans to be fully educated on proper waste disposal, we can’t count on consumers to always know how to throw something away properly and know where it’s going. Therefore, plastics and plastic alternatives will inevitably end up in landfills.”

### Is Biodegradable Plastic just another Instance of Greenwashing?

Greenwashing can also be applied to certain plastic products – such as food storage bags and trash can liners – touted on store shelves as “eco-friendly” when, in actuality, the plastic involved is only partially constructed of biodegradable materials.

For decades, in fact, partially biodegradable plastic has ameliorated problems for waste management companies overwhelmed with mountains of plastic based trash – such as disposable diapers – that cannot be recycled and has nowhere else to go.

However, plastic that mixes biodegradable compounds with petroleum compounds does not offer a genuinely non-toxic, renewable substitute because the petro-plastic in the mix still takes hundreds of years to fully degrade.

Biodegradable plastic can be a solution – and avoid the label of ‘greenwashing’ – only if it meets a sort of *Nirvana* level of criteria for rapid reintegration with the biosphere.

The criteria include:



- No ruination of existing wilderness or wildlife habitat and responsible use of agricultural land during sourcing
- Zero toxins used and zero toxic waste generated during manufacturing
- The proactive ability to completely break down like all other organic matter after disposal

Bioplastic additionally should meet the six standards of





Is Bioplastic the solution to plastic pollution?

biodegradability defined by  
Vincotte



(<http://www.okcompost.be/en/home>)

Vincotte.com  
(<http://www.vincotte.com/en/home>)

(<http://www.vincotte.com/en/home>) and other environmental organizations, including the ability to biodegrade:

- Aerobically and Anaerobically (with or without oxygen)
- In freshwater
- In ocean water
- In soil
- Via industrial composting
- Via home composting

The ability to degrade without use of a home compost bin or being sent to a composting facility is especially significant. Not everyone wants to compost in the backyard, and many waste management firms do not operate composting facilities.

“Composting involves creating a more controlled and faster environment for a process that is a part of the cycle of life on Earth,” says Miles. “It involves different microbes and organisms that break down certain materials into compost soil. Compost piles must be turned often and reach high temperatures to break down the materials. The microbes that do the work in compost piles increase once temperatures get higher, and the high temperatures also get rid of pathogens.

“100% biodegradable plastics, if able to break down in landfills, are the best alternative to plastic products,” continues Miles. “We are always going to need and use plastic products, especially if you think of the medical industry as an example. We cannot use plastic forever, because we only have

so much oil on this planet to make plastic, and it will run out... If there are biodegradable products that will break down without off-gassing or taking up space in landfills, that’s an amazing solution.”

The impact of 100% biodegradable plastics on the global trash problem will be huge, no question.

Because it simply dissolves into the earth in a short period of time, PHA biodegradable plastic will free consumers from having to sort disposable plastic containers into separate bins, and will take the burden off of waste management firms to deal with the bits and pieces of plastic that inevitably end up in the wrong bin.

### **Why MHG PHA Biodegradable Plastics Transcend ‘Greenwashing’ and the need for Recycling**



MHG PHA biodegradable plastic meets most, if not all, standards required for biodegradable



MHG uses cold-pressed canola oil as a renewable and sustainable resource to produce PHA biodegradable plastic.

plastic to offer a viable substitute for petro plastic, and a genuinely “green” solution to the world’s plastic problem.

### MHG PHA Biodegradable Plastic is:

- Derived from canola seed harvested from crops grown in rotation with food crops.
- Produced via cold-pressing, using no toxic chemicals whatsoever
- Meets all [Vincotte](http://www.vincotte.com/en/home) requirements for the six levels of biodegradability.

In addition to being 100% safe for use in home composters and composting facilities, when discarded into landfills, or as litter, plastic products made 100% from MHG PHA will biodegrade 100%, without a trace, under the same conditions required for decomposition of any other vegetable based product: sun, soil, and water.

### Does Your Company Manufacture Plastic Products?

Please visit [MHGBio.com](http://www.mhgbio.com) (<http://www.mhgbio.com/>), to find out more about how biodegradable plastics from MHG can be adapted to a wide range of product manufacturing and packaging requirements.

**Learn more** (<http://www.mhgbio.com/mhg-sustainability/mhg-certifications/>) about how MHG’s biodegradable PHA plastic is **Certified** (<http://www.mhgbio.com/mhg-sustainability/mhg-certifications/>) for all six levels of biodegradability and compostability.

Meridian: A Portrait in Sustainability (<http://vimeo.com/102149224>).

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